



ANATARA  
LIFESCIENCES

# Newsletter

## Message from the Chairman

As world health authorities and governments begin to ramp up warnings about the threat of antibiotic-resistant bacteria to human health, Anatara Lifesciences has emerged as a company with a plan and a product to help tackle that threat.

It gives me great pleasure to welcome you to our company and join with us in what promises to be an exciting journey with the potential to have a real impact on people's lives.

Our lead product, Detach™, answers the need for effective non-antibiotic medicines to treat and prevent diarrhoea in farm animals and, in the future, humans, that won't contribute to the rise in so-called "superbugs".

We are hugely encouraged by the support of investors who participated in our Initial Public Offering, which raised \$7 million and closed oversubscribed. I'd like to thank shareholders for their strong support during the listing process and joining Anatara for what promises to be an exciting future.

The past few months have been extremely exciting, culminating in our listing on the ASX earlier this month. Prior to that we engaged with investors around the country in a roadshow that showcased the uniqueness of our company and its potential. The media picked up on our proposition and provided enthusiastic and extensive coverage.

We also attended the world's largest biotech convention, BIO, in San Diego, where we presented to potential investors and partners and made significant connections with leaders in the animal health space.

We've also announced that the Company has completed the first pilot manufacturing trials of Detach™ and now will scale up to full GMP and commercial scale as we move through the Australian Pesticides and Veterinary Medicines Authority's registration process. We expect to begin field trials in November. In other news, Anatara has been granted small-to-medium enterprise status with the European Medicines Agency, which will provide us with significant savings on fees in future as we head towards a European registration for Detach™.

For more information about our plans and pipeline, copy and paste the following link <http://www.asx.com.au/asxpdf/20141022/pdf/42t29d3qvbc283.pdf> into your internet browser to see our corporate presentation which has also been lodged with the ASX.

I look forward to updating you in the future with more news of our progress.

Yours sincerely

Dr Mel Bridges



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Did you know you can subscribe to receive all company announcements through our Email Alerts service? Copy and paste the following link <http://anataralifesciences.com/investors/email-alerts/> into your internet browser to subscribe.

Our dedicated Investor Centre on the Anatara website has a wealth of resources, including share price data, news, fact sheets and contact details. Copy and paste the following link <http://anataralifesciences.com/investors/> into your internet browser to see more.

# Antimicrobial resistance and why it's an important issue for everybody

Antimicrobial resistance and why it's an important issue for everybody.

It's widely accepted that the invention of antibiotics was one of the turning points for human health.

Before their creation, people could and would die from simple infections. Antibiotics stopped that and millions of lives have been saved.

But the widespread use of antibiotics has seen these life-saving drugs become less effective, as bacteria change and become resistant to their effects. These new forms of bacteria have been christened "superbugs" and have world health authorities and governments worried.

"Without urgent, coordinated action by many stakeholders, the world is headed for a post-antibiotic era, in which common infections and minor injuries which have been treatable for

decades can once again kill," Dr Keiji Fukuda, WHO's Assistant Director-General for Health Security, has said.

"Effective antibiotics have been one of the pillars allowing us to live longer, live healthier, and benefit from modern medicine.

Unless we take significant actions to improve efforts to prevent infections and also change how we produce, prescribe and use antibiotics, the world will lose more and more of these global public health goods and the implications will be devastating."

US President Barack Obama recently issued an Executive Order to combat antibiotic-resistant bacteria which included measures aimed at continuing steps to eliminate the use of medically important classes of antibiotics for growth promotion purposes in food-producing animals.

This follows recommendations by the United Kingdom's Royal Pharmaceutical Society for better stewardship in the use of antibiotics as British Prime Minister David Cameron warned the world could be "cast back into the dark ages of medicine".

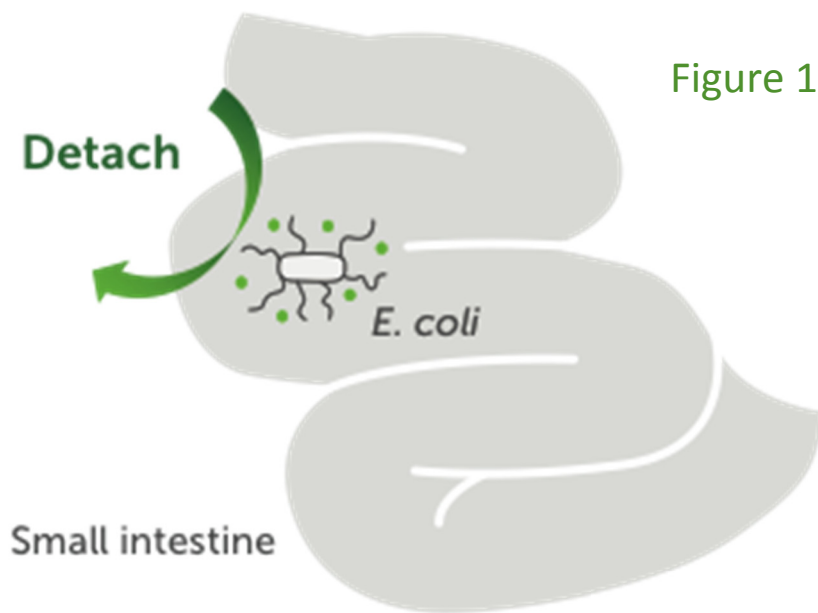
The Australian federal government is also committed to developing the country's first National Antimicrobial Resistance Strategy and has called for submissions from stakeholders.

The increasing awareness worldwide about the need to manage the use of antibiotics, especially in animal production, highlights the importance of non-antibiotic medicines like Anatara's Detach™ and the role we can play in helping address this issue.



## How does Detach™ work?

Unlike antibiotics that try and kill bacteria, Detach™ acts on the underlying cause of diarrhoea. Detach™, not only stops bacteria from attaching and colonising the small intestine, but it also blocks the inflammatory and secretory action of toxins.



**Figure 1a.** Detach prevents attachment of bacteria to the small intestine.

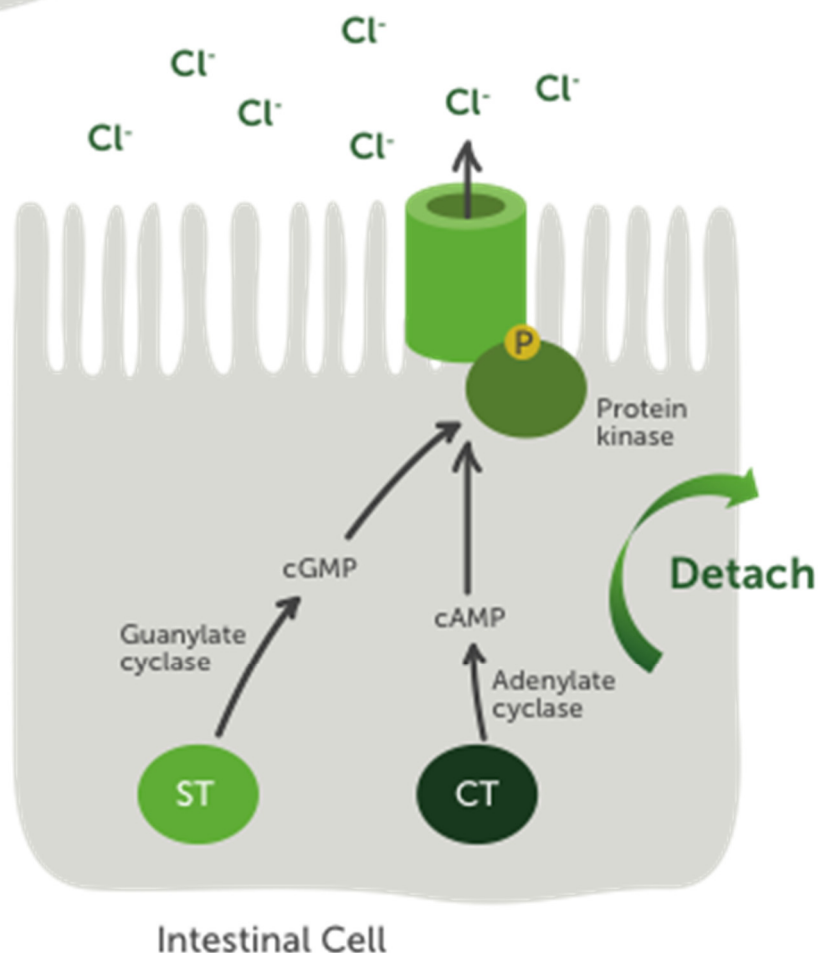
Many bacteria, such as enterotoxigenic *E. coli*, need to attach to the small intestine to cause diarrhoea. Once they attach, they deliver their toxins (see below).

*Detach prevents bacteria from attaching to the intestine, so they then pass through the gut without causing disease.*

**Figure 1b.** Detach blocks intestinal secretion

Diarrhoea is a result of  $\text{Cl}^-$  (chloride) secretion by cells that line the small intestine.  $\text{Cl}^-$  secretion is stimulated through the activation of cyclic AMP (cAMP), cyclic GMP (cGMP) or  $\text{Ca}^{2+}$  (calcium) signalling molecules. Many bacterial toxins activate these signalling molecules in different ways. For example, cholera toxin (CT) produced by *Vibrio cholerae* stimulates cAMP, while heat stable (ST) toxin from *E. coli* stimulates cGMP. Other organisms, such as cryptosporidia and rotavirus cause diarrhoea by the production of inflammatory mediators, such as TNF, that also activate signalling molecules.

*Detach blocks the cell signalling pathways, and therefore prevents diarrhoea.*





## Manufacturing, clinical trials and European SME status

Anatara recently announced it has completed its first pilot manufacturing runs of Detach™.

This is an important step for the Company and means we will now start manufacturing required for registration purposes under the Australian Pesticides and Veterinary Medicines Authority's product registration approval process.

We'll be using our manufactured product in field trials on pig farms which we aim to commence in early November. The trials aim to reconfirm the safety and efficacy of Detach™, with the results to be used as part of our registration application, which we anticipate submitting in early 2015.

Anatara has also achieved small-to-medium enterprise (SME) status with European regulatory body, European Medicines Agency (EMA), which will give us the opportunity to access significant financial savings on registration procedures as we set out to expand Detach™ to Europe.

The aim of the SME initiative is to promote innovation and the development of new medicinal products by smaller companies such as Anatara.

Incentives are provided to help SMEs overcome financial and administrative hurdles associated with pre-marketing procedures, particularly scientific advice, marketing authorisation application and inspection procedures.



### Upcoming activity

#### Wilson HTM Rapid Insights Conference (Sydney) November 12

The conference will provide an opportunity to showcase Anatara to existing and potential Institutional Investors.

#### Euro Tier Conference (Hanover, Germany) November 11-14

The Euro Tier Conference is the world's leading trade fair for animal production. It is a platform for showcasing innovation in the agricultural sector for an international audience.

Anatara will be meeting with leaders in animal life sciences and showing how we can make a difference in animal production and health.

#### Natural Product Biotechnology (Inverness, Scotland) November 18-20

The conference will feature presentations from national and global leaders in the use of high value natural products and their application in drug discovery, foods and nutraceuticals, personal care products and cosmeceuticals, and other biotech applications.



## Anatara in the news

Anatara listed on the Australian Securities Exchange on October 16. Volatility in the market made it a difficult time to list and Anatara's shares were not spared. While Anatara's shares fell on the opening day, they have since stabilised and the company remains focused on achieving its goals as set out to investors at briefings around Australia.

Chief Scientific Officer and Anatara co-founder Dr Tracey Mynott was on hand at the ASX to ring the ceremonial bell as Anatara's shares began trading. Tracey also spoke to Finance News Network on the day of the listing. To view the interview, copy and paste the following link <http://vimeo.com/110339344> into your internet browser.

Anatara received extensive media coverage following the listing and in the lead-up to the IPO. Just some of the headlines are below:



### THE AUSTRALIAN

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**When pineapples and pigs put runs on boards for Anatara**  
ANATARA may be tackling the "runs" but sadly investors yesterday ran from the market — including the porcine diarrhoea outfit's debut.

### THE AUSTRALIAN

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**Let's put some lipstick on this pig**  
CRITERION trusts that delicate readers aren't about to eat, because today's subject is pigs and diarrhoea (scour) prevention.

### 612 ABC Brisbane

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**Pigs poo and pineapples could change the world!**  
This story has it all.... Pigs, Pineapples and poo and it's all in the name of helping sick children in third world countries with an added benefit for Qld farmers.

### QUEENSLAND Country Life

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**Humble pineapple to treat the trots**  
PIG farmers will soon have a new non-antibiotic treatment based on an extract from pineapple stems to treat diarrhoea in their animals.

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**A natural treatment for pig scours — Detach — could be back on the market in two years**  
A NATURAL treatment for pig diarrhoea could soon be on the market.



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