ANATARA LIFESCIENCES

Oral therapeutics for gastrointestinal disease

Detach™ – prevention and treatment of diarrhoea

6 October 2015

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Key Financial Details

ASX Code	ANR
Share Price[1]	$0.76
Market Cap	$37.45 million
Ordinary Shares[2,3]	49,288,246
Raised at IPO (October 2014)	$7 million
Placement and SPP (July 2015)	$9 million
Current Cash[1]	$13.7 million

1. As at 2nd October 2015
2. 13,036,095 shares held by directors, other related parties, and persons who have received shares from these parties are subject to escrow for 24 months from the date of Anatara's listing on the ASX.
3. The Company has implemented an ESOP with capacity to issue up to 5% of the issued share capital as options. As at the date of this presentation, no options or other securities convertible to shares are on issue.

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Detach™

- Natural, non-antibiotic therapeutic that prevents and treats diarrhoea
- Meets the need to reduce antibiotics in animal production
- Unlike antibiotics, Detach™ will not contribute to antimicrobial resistance

Market Opportunity is clear

- Pork is #1 consumed meat in the world. Global demand for meat is rising
- Demand for non-antibiotic treatments continue to rise as authorities restrict use of antibiotics in farm animals
- Consumers want their meat to be safe – and antibiotic free
- Major retailers are demanding antibiotic free produce
- Pork producers need effective alternatives to antibiotics

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Need to combat anti-microbial resistance

- Antimicrobial resistance is a worldwide threat to public health
- Tens of thousands of people die every year because of antibiotic resistant bacteria – so called “Super Bugs”
  (USA CDC, WHO)
- Antibiotic resistance is driven by antibiotic overuse — in man and animals
- World authorities are banning growth promoting antibiotics and restricting prophylactic antibiotics in animal production
- Without antibiotics it will be more difficult to maintain animal welfare and farm productivity

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Detach™ - Poised for swift market entry

- Launch planned in Australia for 2016
- Has a clear path to market
  - *Proven efficacy (therapeutic claims)*
  - *Proven safety* - active ingredient is GRAS (generally recognised as safe)
  - *Manufacturing and global supply confirmed*
  - *Regulatory route defined*
- Addresses a major demand – Need for non-antibiotic alternatives
- Introduction of Detach™ is supported by Industry, Government, Retailer & Consumer demand

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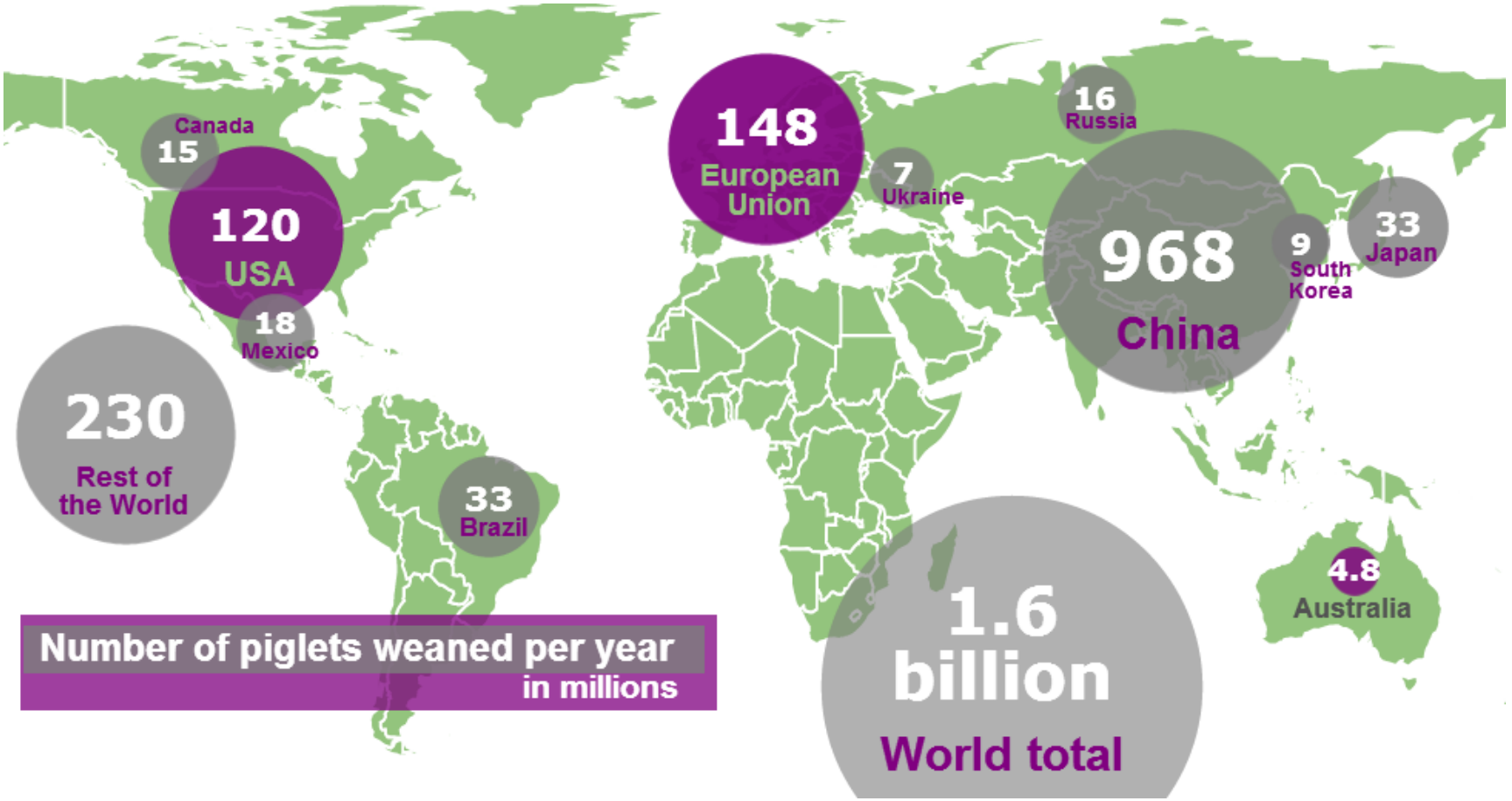
Diarrhoea affects hundreds of millions of pigs born each year



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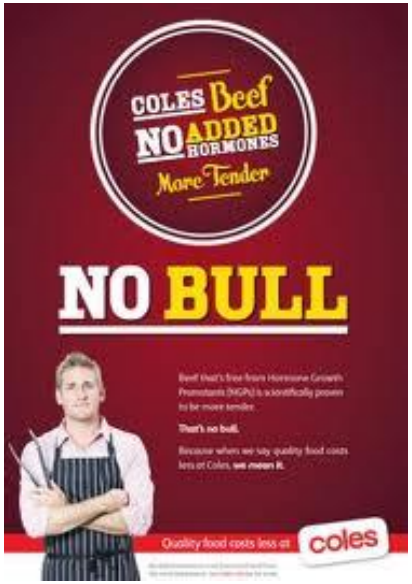
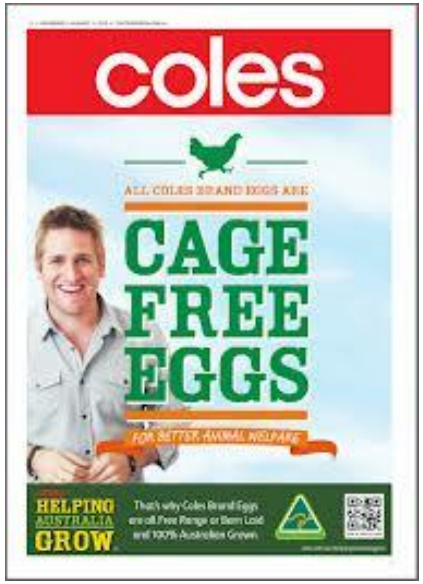
Consumer Pressure
- Food Quality & Food Safety

- McDonald's the world's largest restaurant chain announced it will stop buying chicken raised on antibiotics used in humans
- Other restaurants/suppliers have followed!!
- This move will have a major impact on how animals are reared and consumer expectations
- Chipotle a large Mexican-restaurant chain in the USA has difficulty supplying antibiotic-free pork to their customers *(April 2015)*

Consumer Pressure - Australia - Food Quality & Food Safety





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Partnering/Deal Flow

- Engaged with Top 12 animal health multi-nationals
- Very strong & genuine level of interest
- Due diligence on Detach™ is underway
- First deal expected by 1st Qtr. 2016
- Australian distribution in place
- Opportunity to move direct into Asian markets under review
- Pork CRC partnership up & running
- Now moving to investigate in-feed applications and other livestock (eg. calves; poultry)
- Actively pursuing human partnering strategy

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Operations Update

Manufacture

- Completed GMP manufacture of three commercial scale batches of Detach™
- Stability studies for registration ongoing
- Global market capacity assured

Regulatory

- Appointment of Key EU and USA Regulatory Advisors
- Meeting scheduled for mid-October with EU (CVM) and USA (FDA) regulators
- Data ready for submission to APVMA in Q4 2015/Q1 2016. APVMA review is 9 to 12 months
- SME status received in EU
- Fee Waiver granted in USA

Current 50 kg scale
(≈500,000 doses)

1,000 kg capacity
(≈8,500,000 doses)

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Intellectual Property Update

- PCT application filed (August 2015)
- Second USA patent filed (August 2015)
- Solid patent strategy in place for further patents to be filed in major territories
- Claims cover the Detach™ formulation, as well as use of the active ingredient and composition of matter for the active components within Bromelain-Rx
- Bromelain-Rx is not the same as common bromelain
- Detach™ formulation has superior efficacy to bromelain or bromelain-Rx alone

IP wall of China

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Field Trial Update

Previous Trials

- 21 positive field trials on commercial farms – Detach™ safe and effective in several thousand piglets

Re-registration Trials

- Successful weaner trial in Spain (ANR 12-001)
- Successful sucker trial in Northern Victoria (ANR 14-001)
- Successful weaner trial in South East Queensland (ANR 15-001)
- Successful results in different age groups, in different geographical locations and under different clinical scenarios (mild and severe conditions)
- Final trial – farm selected and in advanced planning (Back up sites under evaluation)

Strengthened Clinical Team

- Appointment of new animal health and industry experts
  - Dr Trish Holyoake, experienced pig veterinarian and scientist
  - New Clinical Trial Advisor
  - New Clinical Research Associate

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1st Re-Registration Trial
ANR 12-001 Highlights (Spain)

Detach™ reduced scour

- Reduced the incidence of scour by 40% ($p<0.05$)
- Detach™ reduced injectable antibiotics by 55% ($p<0.05$)
- A single dose of Detach™ as effective as daily doses of Zinc oxide (ZnO)

Detach™ improved weights

- Improved average daily weight gain by 22% vs control (2 weeks post-weaning, d28 to d42).
- Improved feed conversion ratio vs control and ZnO of 0.04* or 2.7%** (d28 to d70).

**every 0.01 improvement in FCR will reduce feed cost by $0.28 to $0.30 per pig.*
***a 0.1 % improvement in grower FCR can improve the profitability of a 200-sow unit by ≈$6,000 per annum (http://www.australianpork.com.au)*

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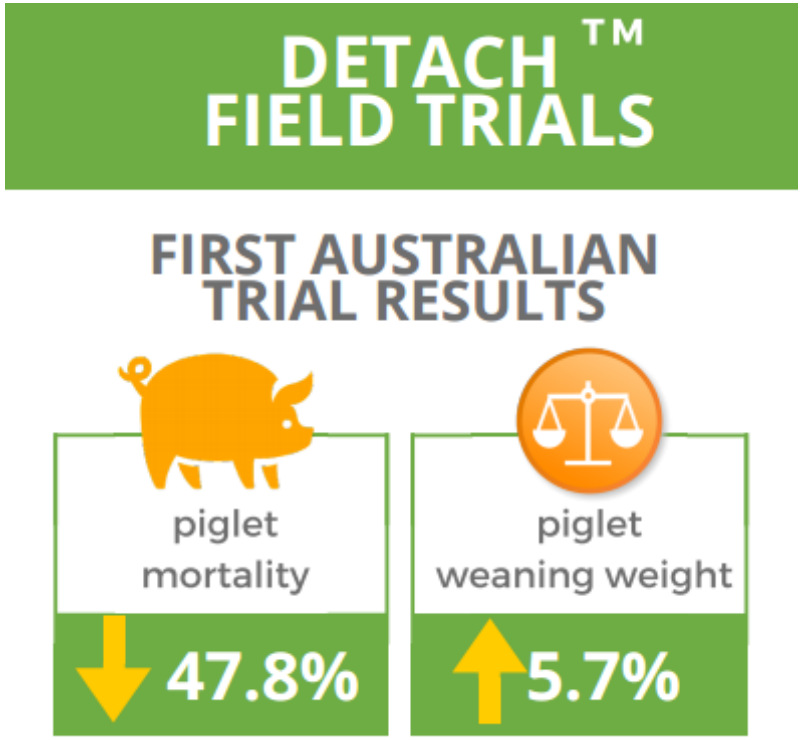
2nd Re-Registration Trial
ANR 14-001 Highlights (Northern Victoria)

Detach™ reduced deaths

- High mortality rate on this farm, so a severe test for Detach™
- 20 more piglets weaned in the Detach™ group

Detach™ improved weights

- Detach™ improved weight gain (224 g per pig) despite increased litter size
- Data consistent with earlier field trials on commercial pig farms
  - supports registration



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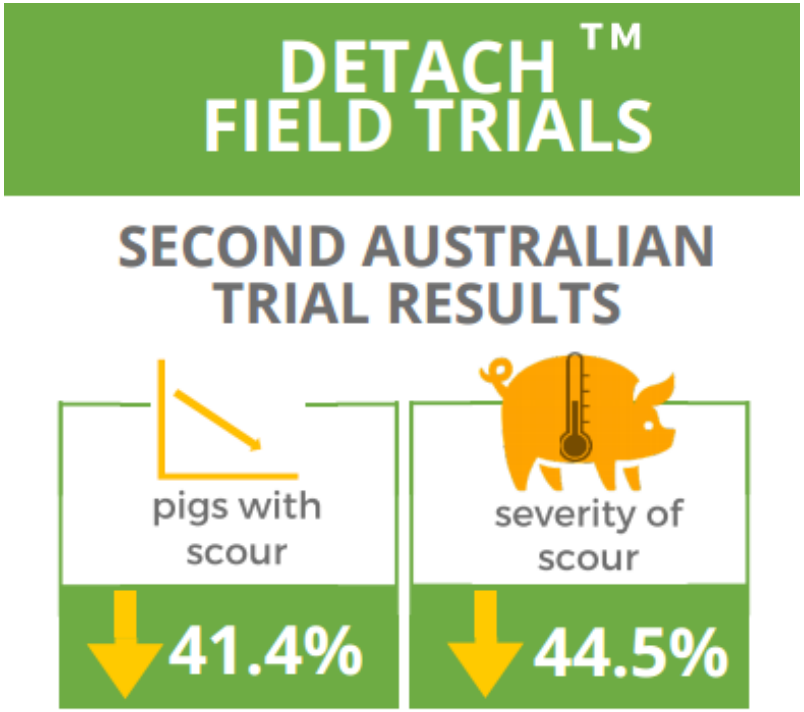
3rd Re-Registration Trial
ANR 15-001 Highlights (SE Queensland)

Detach™ reduced scour

- Detach™ reduced incidence (by 41.4% and severity (by 44.5%) of scour ($p<0.02$).
- Low incidence of disease on this farm, so a difficult test for Detach™
- Lower than expected weight gains of 1.4%

Data supports re-registration



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Detach™ – from farrow to finish

	Dose form	Lead Indication	Competition
Suckers (day 2 after birth to weaning)	Oral drench (2 mL)	Prevent scour (improved ADG[1])	Antibiotics Sow vaccines Coccidiostats
Weaner (day of weaning)	Oral drench (4 mL)	Prevent scour (improved ADG improved FCR[2])	Antibiotics Zinc Oxide
Actively Investigating			
Weaner	In feed	Prevent scour Improve gut health (improved ADG improved FCR)	Antibiotics Low protein diet Zinc oxide Organic acids Probiotics
Grower - Finisher	In feed	Improve gut health (improved ADG improved FCR)	Antibiotics

[1]average daily gain
[2]feed conversion ratio

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Commercialisation strategy

Global Market Development

- **Australia** – Home Test market, directly to pork producers (15 companies control 85% of the Australia pig industry)

- **Overseas** - Co-development and commercialisation partners in Europe and US; expansion into Asia

- **Expansion** – Partnerships for calves, chickens and humans
  - Humans a major Blue-Sky opportunity for Detach™. Diarrhoea is a major unmet need for travellers, the military and in the developing world

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Key News Flow

USA Fee Waiver	Granted
First Field Trial	Complete
Second Field Trial	Complete
Pork CRC Partnership	Complete
New patents filed	Complete
USA INAD Application	Complete
EU and USA Scientific Advice Meeting	Scheduled – mid October
Third Australian (4th Regn) Field Trial starts	Q4 2015
1st Partnering Deal	Q4 2015/Q1 2016
Submission of APVMA license	Q1 2016
APVMA Approval	Q4 2016
EU Field Trials start	2016
USA Field Trials start	2016
EU License Application	2017
USA License Application	2017

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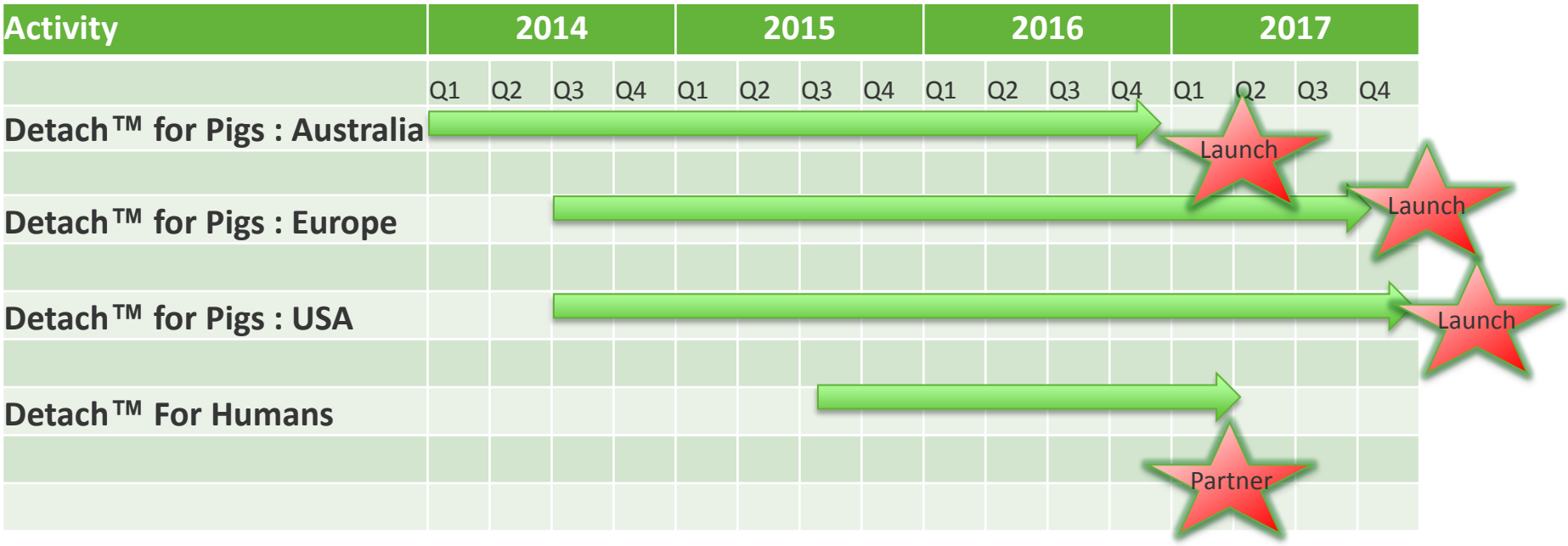
Development Milestones



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Thank you

"With the world's meat production needs set to rise 100% by 2050, it is important we act now to develop non-antibiotic treatment options."

Dr Mel Bridges, Chairman – Anatara Lifesciences

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Board *EXPERIENCE, EXECUTION, REVIEW, BUY-IN*

Dr Mel Bridges
Chairman

Paul A. Grujic
Director

Dr Jay Hetzel
Director

Iain Ross
Director

Dr Tracie Ramsdale
Director

Stephen Denaro
Company Secretary

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Management *EXPERIENCE, EXECUTION, REVIEW, BUY-IN*

Dr Paul Schober
Chief Executive Officer

Dr Tracey L. Mynott
Chief Scientific Officer

Damian Wilson
Head of Business Development

Dr Kevin Woodward
Regulatory Advisor

Dr David Venables
Senior Advisor

Hayley van der Meer
Commercial Manager

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Detach™ – mechanism of action

Activity

- Not an antibiotic, not an anti-viral, not an anti-parasitic
- Detach™ does not kill bacteria, so will not select for resistance
- Effective against the action of bacteria, protozoa and viruses

Detach™ acts on the underlying cellular mechanisms of diarrhoea

Novel triple mode of action

1. Temporarily modifies intestinal receptors to prevent *E. coli* from attaching and colonising the intestine
2. Prevents and reverses toxin action and release of fluid into the intestine
3. Prevents action of inflammatory mediators

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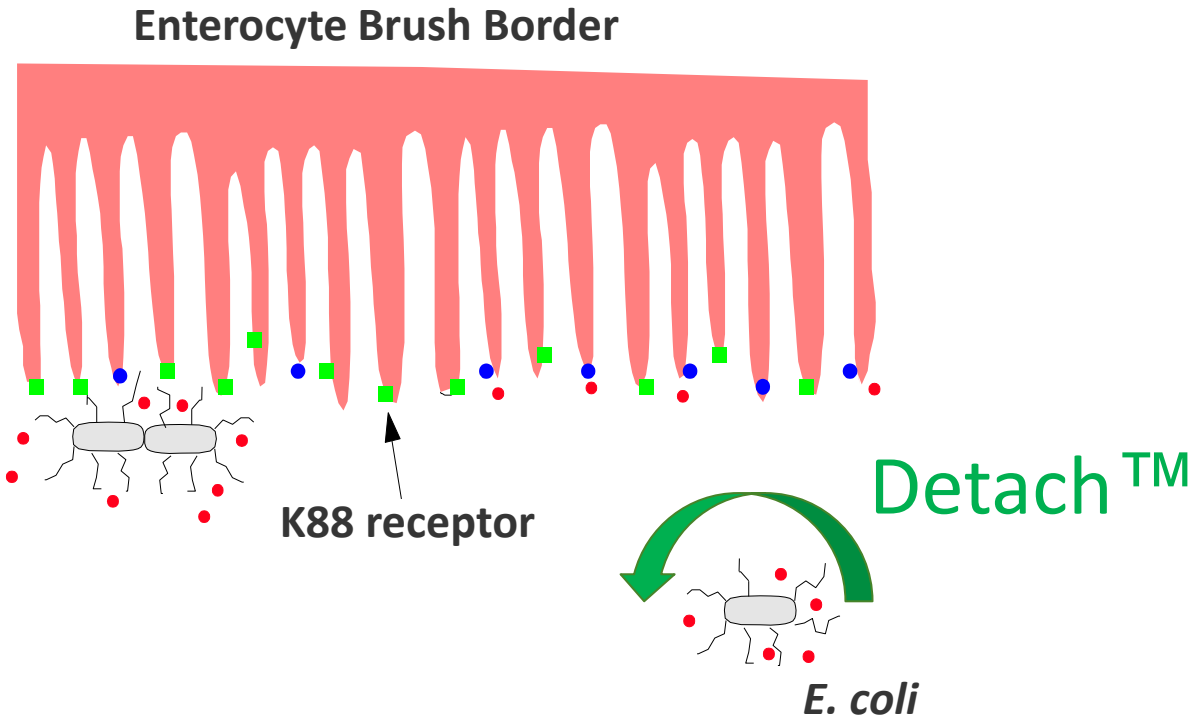
Detach™ temporarily modifies *E. coli* enterocyte receptors - Bacteria cannot attach, so do not cause disease



Chandler and Mynott. 1998. *Gut* 43:196-202.
Mynott, et al., 1996. *Gut* 38:28-32.

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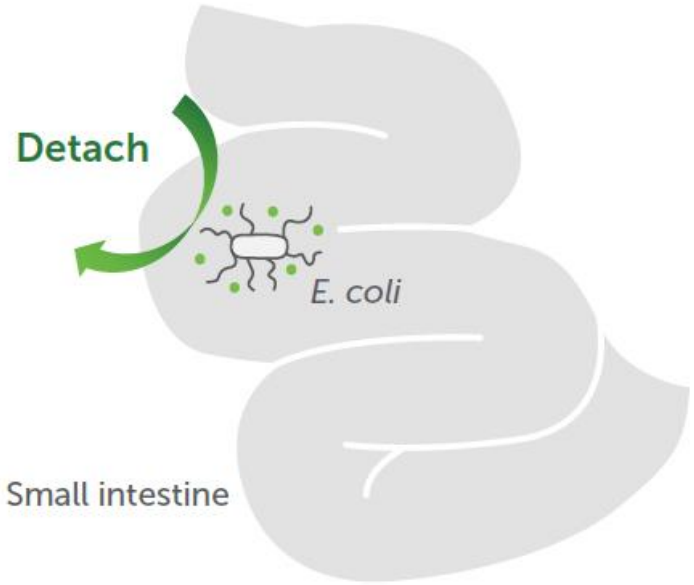
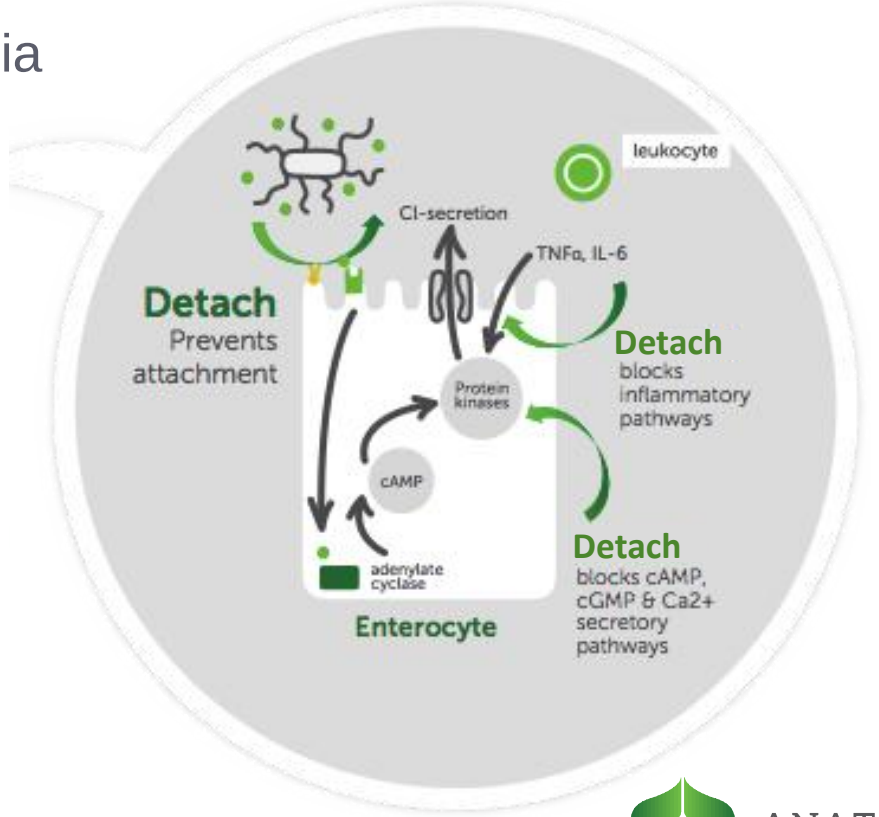
Detach™ Triple Mechanism of Action
= Broad Spectrum Activity

Effective against diarrhoea caused by bacteria, viruses and parasites

1. Prevents attachment of bacteria



2. Blocks toxin action
3. Blocks inflammatory action.



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Mynott, T.L. et al. 1997. *Gastroenterol.* 113:175-184.
Mynott, T.L. et al. 1999. *J. Immunol.* 163:2568-2575

Previous Detach™ Field Trials – Australia and Spain

- Proven to be safe and effective in several thousand piglets
- Reduced death, improved weight gains and reduced antibiotic use
- Effective against a range of pathogens; K88+ and K99+ E. coli, rotavirus & coccidia

Detach™ trials	Suckers (n = 12 trials)			Weaners (n = 9 trials)		
	Untreated	Detach™	% difference	Untreated	Detach™	% difference
No. piglets	2,414	2,800	-	1,543	1,481	-
ADG* (g/day)	198	220	**13.3%**	314	335	**10.3%**
Mortality (%)	8.7	4.0	**42.8%**	3.1	2.3	**41.2%**
Antibiotic use /100 pigs	6.7	2.9	**67.0%**	61.6	28.8	**58.7%**
FCR** (n=1) (wean to day 14 post weaning)			**na**	2.91	2.66	**8.4%**

*average daily gain
**feed conversion ratio

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First Australian Re-registration Field Trial (ANR-14-001)

- 1200 sow farm had a history of problems with pre-weaning scour
- Current approaches such as sow vaccines and antibiotics (neomycin, trimethoprim/ sulfadiazine) failed to control the problem
- Trial was blinded, randomised and placebo controlled
  - Group 1 – Detach™, 21 litters (233 piglets)
  - Group 2 – Control, 23 litters (229 piglets)
- Trial designed to meet Australian regulatory requirements (APVMA) and on farms owned by key pork industry opinion leaders

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ANR 14-001 – Key Results

Detach™ reduced deaths

- Detach™ reduced deaths by approximately 50% ($p<0.02$).
  - 92% of Detach™ pigs weaned (or 20 more piglets)
  - 85% of control piglets weaned
- Number of piglets weaned per litter is a KPI for the pork industry
- Each weaned piglet has a value of $50 to $80
- High mortality rate on this farm, so a severe test for Detach™

Detach™ improved weights

- Detach™ improved weight gain by 5.7% (or 224 g per pig)
- Detach™ treated group - 118 kg more meat
  extrapolated to slaughter = 10 x 0.75 (carcass weight) = 885 kg
- Data consistent with earlier field trials on commercial pig farms
  – supports registration

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ANR 14-001 Results

- Detach™ significantly reduced piglet mortality by 47.8%
- Detach™ reduced severe morbidity, or life threatening disease

Table 1 – Pre-weaning morbidity and mortality

Treatment	No. Pigs	Morbidity Score 4*	No. deaths	% mortality[1]
Detach™	233	28	19	8.2%
Untreated	229	38	36	15.7%
			% reduction	**47.8%**

*Score 4 - pigs with life threatening disease (p=0.20 ns)

[1]$p<0.02$

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ANR 14-001 Results

Detach™ increased the average weight of each piglet at Day 21 by 224 g (5.7%)

Table 2 - Weight gains and ADG from Day 2 to Day 21

Treatment	No. Pens	Litter size (Day 21)	Average Weight Gain (g) (min – max)	Average ADG (g/day) (min – max)
Detach	21	10.19	4,188 (2,512 to 5,279)	199 (120 to 251)
Untreated	23	8.48	3,964 (939 to 5,205)	189 (45 – 248)
		% increase	5.7%	5.6%

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Second Australian Re-registration Field Trial (ANR-15-001)

- Grower facility had a history of problems with post-weaning disease due to *E. coli*
- Trial was blinded, randomised and placebo controlled
  - Group 1 – Detach™, 20 pens (280 piglets)
  - Group 2 – Control, 20 pens (280 piglets)
- Despite history of disease pre-study, disease incidence dramatically reduced during the study.
- No antibiotic treatments required to treat scour

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ANR 15-001 Results

Table 1 – Scour morbidity and mortality

Treatment	No. Pigs	Scour frequency	Scour severity	No. deaths
Detach™	280	89	96	0
Untreated	280	152	173	4
% reduction		**41.4%***	**44.5%***	

*p<0.02

Table 2 - Weight gains and ADG from Day 21 (weaning) to Day 49

Treatment	No. Pens	Pen size	Average Weight Gain (kg) (s.d)	Average ADG (g/day) (min – max)
Detach™	20	14	7.1 (± 0.7)	252.1 (± 25.35)
Untreated	20	14	7.0 (± 0.7)	249.6 (± 26.3)
			1.4%	1%

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Competition and Limitations

Description	Example	Limitations
Antibiotics	Azithromycin, Rifaximin Lincospectin or Amoxycillin ($0.31 to $3.50/pig)	Contributes to AMR/residues Pathogen specific Multiple dosing
Antimicrobial	Zinc Oxide (widely used although not approved in Australia) ($0.34 / pig)	Antimicrobial resistance Environmental issues/residues Reduced palatability Quality control issues Banned in some countries
Vaccines	Autogenous Multivalent Pathogen specific (up to $3.00 per pig)	Expensive Pathogen specific Prevention only
Non-specific	Low protein diet Organic acids	Can reduce performance

Pork CRC – Strategic Partnership

- Pork CRC - a Cooperative Research Centre, with funding by the Australian Government
- The CRC program supports end user driven collaborations to address major challenges facing Australia
- Pork CRC aim to provide and adopt new and novel technologies that reduce feed costs, improve herd feed conversion efficiency and increase the range and functionality of pork products
- **Pork CRC participants are also <u>end users</u> thereby facilitating rapid uptake of new technologies by the industry**