

Reducing Free Milk Glycan Monomers Generated by the Neonate Gut Microbiota Eliminates Colonization by Dysbiotic Microbiome Members

Tech ID: 24829 / UC Case 2015-193-0

ABSTRACT

Researchers at the University of California, Davis have found a natural way to prevent the development of pig scour in nursing pigs.

FULL DESCRIPTION

Pig scour, or colibacillosis, is a major cause of illness and death in nursing or weaning pigs worldwide. The US economic effect is estimated to be close to \$236 million annually through death and disease. The disease itself is characterized by diarrhea that leads to dehydration and death among untreated animals and spreads rapidly within a facility. Dysbiosis in the gut microbiome of these animals has been identified as a primary driverfor Enterobacteriaceae and Clostridiaceae, the organisms primarily responsible for pig scour.

Current prophylactic treatments for pig scour includes vaccination, stringent sanitation procedures, and in-feed antibiotics for weaning animals. Despite these preventative strategies, pig scour remains a major economic cost to swine producers.

Researchers at the University of California, Davis have demonstrated a prophylactic treatment of pig scour in swine which is effective in reducing colonization by Enterobacteriaceae and Clostridiaceae in nursing pigs.

APPLICATIONS

- Treatment of nursing and weaning pigs to prevent scour.

FEATURES/BENEFITS

- Does not increase risk of antibiotic resistant infection in swine.
- Cheap and effective preventative treatment.
- Easy to mass treat swine populations.

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	11,633,461	04/25/2023	2012-346
United States Of America	Issued Patent	11,285,182	03/29/2022	2015-193
United States Of America	Issued Patent	11,000,576	05/11/2021	2012-346
United States Of America	Issued Patent	10,780,136	09/22/2020	2015-193
United States Of America	Issued Patent	10,688,160	06/23/2020	2012-346
United States Of America	Issued Patent	10,639,357	05/05/2020	2012-346
United States Of America	Issued Patent	10,471,134	11/12/2019	2012-346
United States Of America	Issued Patent	10,350,249	07/16/2019	2015-193
United States Of America	Issued Patent	10,165,788	01/01/2019	2013-877

CONTACT

Victor Haroldsen
haroldsen@ucdavis.edu
tel: 530-752-7717.



INVENTORS

- Frese, Steven
- Mills, David A.

OTHER INFORMATION

CATEGORIZED AS

- **Agriculture & Animal Science**
 - Animal Science
- **Veterinary**
 - Large Animal
 - Therapeutics

RELATED CASES

2015-193-0, 2009-110-0, 2012-346-0, 2013-877-0

United States Of America	Issued Patent	10,071,142	09/11/2018	2012-346
United States Of America	Issued Patent	9,327,016	05/03/2016	2012-346
United States Of America	Issued Patent	8,425,930	04/23/2013	2009-110

RELATED TECHNOLOGIES

- ▶ [Novel Compounds & Methods for Producing N-Glycans](#)

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- ▶ [Bifidobacterial Probiotics for Nursing and Weaning](#)
- ▶ [Bifidobacterial Probiotic Supplements for Infants](#)
- ▶ [Increased Microorganism Alcohol Tolerance Via Transformation of its pntAB Locus](#)
- ▶ [Novel Compounds & Methods for Producing N-Glycans](#)

University of California, Davis

Technology Transfer Office

1 Shields Avenue, Mrak Hall 4th Floor,
Davis,CA 95616

Tel:

530.754.8649

techtransfer@ucdavis.edu

<https://research.ucdavis.edu/technology-transfer/>

Fax:

530.754.7620

© 2015 - 2025, The Regents of the University of California

[Terms of use](#)

[Privacy Notice](#)