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Title: *Streptococcus suis* serotype 9 strain GZ0565 contains a type VII secretion system putative substrate EsxA that contributes to bacterial virulence and a *vanZ*-like gene that confers resistance to teicoplanin and dalbavancin in *Streptococcus agalactiae*



Authors: Liying Lai, Jiao Dai, Huanyu Tang, Shouming Zhang, Chunyan Wu, Wancen Qiu, Chengping Lu, Huochun Yao, Hongjie Fan, Zongfu Wu

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***Streptococcus suis* serotype 9 strain GZ0565 contains a type VII secretion system putative substrate EsxA that contributes to bacterial virulence and a *vanZ*-like gene that confers resistance to teicoplanin and dalbavancin in *Streptococcus agalactiae***

Liyang Lai<sup>1,2,3#</sup>, Jiao Dai<sup>1,2,3#</sup>, Huanyu Tang<sup>1,2,3</sup>, Shouming Zhang<sup>1,2,3</sup>, Chunyan Wu<sup>4</sup>, Wancen Qiu<sup>4</sup>, Chengping Lu<sup>1,2,3</sup>, Huochun Yao<sup>1,2,3</sup>, Hongjie Fan<sup>1,2,3,5</sup>, Zongfu Wu<sup>1,2,3,\*</sup>

<sup>1</sup>College of Veterinary Medicine, Nanjing Agricultural University, Nanjing 210095, China

<sup>2</sup>Key Lab of Animal Bacteriology, Ministry of Agriculture, Nanjing 210095, China

<sup>3</sup>OIE Reference Lab for Swine Streptococcosis, Nanjing 210095, China

<sup>4</sup>Realbio Genomics Institute, Shanghai 200050, China

<sup>5</sup>Jiangsu Co-innovation Center for Prevention and Control of Important Animal Infectious Diseases and Zoonoses, Yangzhou 225009, China

#These authors contributed equally to this work.

\*Corresponding author: Zongfu Wu; No.1 Weigang Road, College of Veterinary Medicine, Nanjing Agricultural University, Nanjing 210095, China; Tel/Fax: 0086-25-84398606; Email: wuzongfu@njau.edu.cn

## Highlights

- We have reported the first complete genome of SS9 virulent strain GZ0565.
- Five new putative virulence or drug resistance proteins were found in strain GZ0565.
- Strain GZ0565 secretes a T7SS putative substrate EsxA contributing to SS virulence.
- The *vanZ<sub>SS</sub>* gene in strain GZ0565 confers resistance to teicoplanin and dalbavancin.

## Abstract

*Streptococcus suis* (SS), an important pathogen for pigs, is not only considered as a zoonotic agent for humans, but is also recognized as a major reservoir of antimicrobial resistance contributing to the spread of resistance genes to other pathogenic *Streptococcus* species. In addition to serotype 2 (SS2), serotype 9 (SS9) is another prevalent serotype isolated from diseased pigs. Although many SS strains have been sequenced, the complete genome of a non-SS2 virulent strain has been unavailable to date. Here, we report the complete genome of GZ0565, a virulent strain of SS9, isolated from a pig with meningitis. Comparative genomic analysis revealed five new putative

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