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On-line Data Supplement

2

4 Supplementary Table S1

5

Lung injury scoring system

Parameter	Score per field		
	0	1	2
A. Neutrophils in the alveolar space	None	1-5	>5
B. Neutrophils in the interstitial space	None	1-5	>5
C. Hyaline membranes	None	1	>1
D. Proteinaceous debris filling the airspaces	None	1	>1
E. Alveolar septal thickening	<2x	2x-4x	>4x

6

$$\text{Score} = [(20 \times A) + (14 \times B) + (7 \times C) + (7 \times D) + (2 \times E)] / (\text{number of fields} \times 100)$$

7

8 Supplementary Table S2

9

Primer sequences

Target	Primers	Sequence(5'-3')	Amplicon size(bp)
icaA	F	TCTCTTGCAGGAGCAATCAA	188
	R	TCAGGCACTAACATCCAGCA	
icaD	F	ATGGTCAAGCCCAGACAGAG	198
	R	CGTGTTTCAACATTAAATGCAA	
lrgA	F	CCCTCCCCAAGTTAGTTGTT	315
	R	ATTCCTATGCCAGCGTCAGT	
lrgB	F	GGTGGAACAAATGGCAACGAT	551
	R	ATGGTTGCGGGGATCGTATT	
agrA	F	CCGAAGCAAAACAGTGCTCA	600
	R	AGATTGCGCTTGCAACAGAC	
agrB	F	GCTTAAACGGTCTGGTGCT	276
	R	ACACGGTGCACATGCAAAT	
agrD	F	ACGTGCGATTAAAGGCTTGG	183
	R	AACGCATCTCAAGTGCTTCAG	

luxS	F	GCCCAACCGCATTGTACTTC	332
	R	GTTGTTGCACCTTCGTCCG	
ebpS	F	TTCCCACCTAGAAACGCACA	605
	R	TTAGCGTCACGATGGTCGTC	
fbp	F	CCACCAATGTTGCTCGTGT	292
	R	TGTTTGAGTAGGTGGCGCT	
cbp	F	TACGCTAGCGCAAGGTGAAT	383
	R	TGTTTAACGGACGGCCAACT	
atlE	F	GCAAAGGTGGCCTGCTACT	594
	R	GGTAAGCGTGTGGGTAGAA	
cidA	F	CTAGCTGGAAGTATCGTAGGCA	251
	R	ACCATYTTTCAGCGATGTAACC	
cidB	F	CCCAGCGTTAGTAGGTTCGG	480
	R	TTTGCAGGTACCRRAAGCGTG	
srtA	F	AAACAAACACCAACCATCCCT	406
	R	CCCAAACACCGGTTGTTCAT	

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2 **Supplementary Table S3**

3

Details of *S. haemolyticus*

Lane No.	Strain	Source	Specimen origin
1	<i>S. haemolyticus</i>	nursing house	nasal swabs
2	<i>S. haemolyticus</i>	nursing house	nasal swabs
3	<i>S. haemolyticus</i>	nursing house	axillary swabs
4	<i>S. haemolyticus</i>	nursing house	axillary swabs
5	<i>S. haemolyticus</i>	nursing house	axillary swabs
6	<i>S. haemolyticus</i>	nursing house	axillary swabs
7	<i>S. haemolyticus</i>	nursing house	axillary swabs
8	<i>S. haemolyticus</i>	nursing house	axillary swabs
9	<i>S. haemolyticus</i>	nursing house	axillary swabs
10	<i>S. haemolyticus</i>	nursing house	nasal swabs
11	<i>S. haemolyticus</i>	hospital	blood
	Marker		

12	<i>S. haemolyticus</i>	hospital	blood
13	<i>S. haemolyticus</i>	hospital	blood
14	<i>S. haemolyticus</i>	hospital	blood
15	<i>S. haemolyticus</i>	hospital	blood
16	<i>S. haemolyticus</i>	hospital	blood
17	<i>S. haemolyticus</i>	hospital	blood
18	<i>S. haemolyticus</i>	hospital	blood
19	<i>S. haemolyticus</i>	hospital	blood
20	<i>S. haemolyticus</i>	hospital	blood(for vivo experiment)
21	<i>S. haemolyticus</i> ATCC29970		
22	<i>S. epidermidis</i> ATCC12228		
23	Negative		

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2 **Supplementary Table S4**

3

Antimicrobial Resistance Profile of *S. haemolyticus*

	Lane No.									
	11	13	14	15	16	17	18	19	20	21
P	R	R	R	R	R	R	R	R	R	R
OX	R	R	R	R	S	R	S	R	R	R
CIP	S	R	R	R	S	R	S	S	R	R
VA	S	S	S	S	S	S	S	S	S	S
TE	S	S	S	R	R	S	S	S	S	S
DA	R	R	R	R	S	R	R	S	R	S
SXT	S	S	R	S	S	R	S	S	S	R
MXF	S	I	I	R	S	R	S	S	R	I
RD	S	S	S	S	S	S	S	S	S	S
E	R	R	R	R	S	R	S	S	R	S
CN	S	I	R	R	S	R	S	S	R	S
LEV	S	R	R	R	S	R	S	S	R	R
LZD	S	S	S	S	S	S	S	S	R	S

4 P, Penicillin; OX, Oxacillin; CIP, Ciprofloxacin; VA, Vancomycin; TE, Tetracycline; DA,

5 Clindamycin; SXT, Sulfamethoxazole/Trimethoprim; MXF, Moxifloxacin; RD, Rifampicin; E,

1 Erythromycin; CN, Gentamicin; LEV, Levofloxacin; LZD, Linezolid.

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3 **Supplementary FigureS1**

4 (A-H) Gel electrophoresis of multiplex PCR showed fragments of *icaA*, *icaD*, *csp*, *agrD*, *ebpS*,
5 *fbp*, *srtA*, *agrA*, *agrB*, *luxS*, *cidA*, *cidB*, *IrgA*, *IrgB* and *atlE* for *S. haemolyticus*. Lanes 1 to 10
6 are strains from nursing houses. Lanes 11 to 19 are strains from hospitals. Lane 20 is the *S.*
7 *haemolyticus* used in our vivo experiment. Lane 21 is *S. haemolyticus* ATCC29970. Lane 22 is
8 *S. epidermidis* ATCC12228. Lane 23 is reaction negative control.

9

10 **Supplementary Video**

11 Mice home cage activities were observed at 12 and 36 hours after inoculation of 10^6 , 10^7 or 10^8
12 CFU of *S. haemolyticus*, respectively. The video loop of inoculation of 10^8 at 12 hours showed
13 markedly altered behavioral performance, such as horizontal locomotion, climbing the cage lid,
14 hanging on the lid and jumping, when compared with other groups.