

Supplementary Table 1. *S. aureus* ocular isolates from different ocular conditions used in the study.

<i>S. aureus</i> strains	Year of isolation	Ocular condition
106	2004	Microbial Keratitis, USA (Bascom Palmer Institute, Miami, FL)
107		
108		
109		
110		
111		
112		
113		
114		
M5-01		
M19-01		
M27-01		
M28-01		
M30-01		
M36-01		
M43-01		
M49-02		
M65-01		
M71-01		
M90-01		
M91-01		
34	1997	
129	2006	
84	2004	Conjunctivitis, USA (Bascom Palmer Institute, Miami, FL)
85		
86		
87		
88		
89		
90		
91		
92		
93		
94		
95		
96		
97		
98		
99		
100		
101		
102		
103		

104		
105		
46	2006	Conjunctivitis, Australia (Prince of Wales Hospital, Randwick, NSW)
134		
136		
140		
12		
20	1995	Contact lens-related non-infectious corneal infiltrative events, Australia (School of Optometry and Vision Science, Randwick, NSW)
24	1996	
25		
26		
27		
28	1997	
29		
31		
32		
33		
48	2001	
117	1999	
41		

Supplementary Table 2. PCR primers and conditions for the selected virulence determinants

Gene	5' to 3' primer sequence	aT (°C)	Base pairs
<i>fnbpA</i> -F	5'-CACAACCAGCAAATATAG-3'	50	1362bp (43)
<i>fnbpA</i> -R	5'-CTGTGTGGTAATCAATGTC-3'		
<i>eap</i> -F	5'-TACTAACGAAGCATCTGCC-3'	50	230bp (51)
<i>eap</i> -R	TTAAATCGATATCACTAATACCTC		
<i>clfA</i> -F	5'-GGC TTC AGT GCT TGT AGG 3 '	57	980bp (44)
<i>clfA</i> -R	3'- TTT TCA GGG TCA ATA TAA GC 5'		
<i>hla</i> -F	5'-CCATATACCGGGTTCCAAGA 3'	57	*(45)
<i>hla</i> -R	3'-CGGTAACGTGACTGGTGATG 5'		
<i>coa</i> -F	5'-GTCAAGCAGTTATTAACACCAGAC-3'	55	1120bp (11)
<i>coa</i> -R	5'-AATCAGTAATTGCACTTTGTCCAC TG-3'		
<i>scpA</i> -F	AGGAGTTTTTATATGAAAAG	50	1235,1236bp (78)
<i>scpA</i> -R	TACCTTTCTAAAATACAAAT		
<i>sspB</i> -F	5' -TTTGATTAAATGGAGGGTA-3'		
<i>sspB</i> -R	5'- CCTGCC TTTAATCAATATCT-3'		
<i>sspA</i> -F	5'- TCCACAACAAACGCAGTCAAG CA-3'	58	654bp (46)
<i>sspA</i> -R	ACACCGCCCCAATGAATTCCGA		
<i>seb</i> -F	5'-GTATGGTGGTGTAAGTACTGAGC-3'	57	164bp (50)
<i>seb</i> -R	5'-CCAAATAGTGACGACGAGTTA GG-3'		
<i>hlg-1</i>	5'-GCCAATCCGTTATTAGAAAAT GC-3'	55	937bp (40)
<i>hlg-2</i>	5'-CCATAGACGTAGCAACGGAT-3'		
<i>hld-1</i>	5'-GAATTTGTTCACTGTGTCG-3'	50	357bp (48)
<i>hld-2</i>	5'-TTTACACCACTCTCCTCAC-3'		
<i>pvl</i> -F	5'-ATCATTAGGTAATAATGTCTGGACA TGATCCA-3'	55	433bp (49)
<i>pvl</i> -R	5'-GCATCAASTGTATTGGATAGCAAA AGC-3'		

aT (°C) indicates annealing temperature; *, polymorphic.

Supplementary Table S3. *S. aureus* strains by condition showing presence or absence of *mecA* gene and known virulence genes involved in adhesion, evasion, and invasion.

Strain	Condition	PCR results for possession of virulence genes (1=present; 0=absent)												
		<i>mecA</i>	Adhesion			Evasion						Invasion		
			<i>clfA</i>	<i>fibpA</i>	<i>eap</i>	<i>scpA</i>	<i>sspB</i>	<i>sspA</i>	<i>coa</i>	<i>seb</i>	<i>hla</i>	<i>hlg</i>	<i>hld</i>	<i>pvl</i>
106	MK USA	0	1	1	1	0	1	1	1	0	1	1	1	0
107		0	0	1	1	0	1	1	1	0	1	1	1	0
108		0	1	1	1	0	1	1	1	0	1	1	1	0
109		1	0	1	1	0	1	1	1	1	1	1	1	0
110		1	0	1	1	0	1	1	1	1	1	1	1	1
111		1	1	1	1	0	1	1	1	0	1	1	1	0
112		1	1	1	1	0	1	1	1	0	1	1	1	0
113		1	1	1	1	0	1	1	1	0	1	1	1	0
114		0	1	1	1	0	1	1	1	0	1	1	1	0
Frequency		55%	67%	100%	100%	0%	100%	100%	100%	22%	100%	100%	100%	11%
129	MK AUS	0	1	1	1	0	1	1	1	0	1	1	1	0
34		0	0	1	1	1	1	1	1	1	1	1	1	0
M5001		0	1	1	1	1	1	1	1	0	1	1	1	0
M19001		0	0	1	1	1	1	1	1	0	1	1	1	0
M27001		0	0	1	1	1	1	1	1	0	1	1	1	0
M28001		0	1	1	1	1	1	1	1	0	1	1	1	0
M30001		0	1	1	1	1	1	1	1	1	1	1	1	0
M36001		0	1	1	1	0	1	1	1	1	1	1	1	0
M43001		0	1	0	1	1	1	1	1	0	1	1	1	0
M49002		0	0	1	1	0	1	1	1	0	1	1	1	0
M65002		0	1	1	1	1	0	1	1	1	1	1	1	0
M71001		0	1	1	1	1	1	1	1	0	1	1	1	0
M90001		0	1	1	1	1	0	1	1	1	1	1	1	0
M91001		0	1	1	1	1	0	1	1	1	1	1	1	0
Frequency		0%	71%	93%	100%	78%	78%	100%	100%	43%	100%	100%	100%	0%
84	Conj. USA	1	1	1	1	1	0	1	0	0	0	1	1	1
85		0	1	1	1	1	1	1	0	1	1	1	1	0
86		0	1	1	1	1	1	0	1	1	1	1	1	1
87		0	1	1	1	1	1	1	1	1	1	1	1	0
88		1	1	1	1	1	1	0	0	1	1	1	0	0
89		0	1	1	1	1	1	1	0	0	1	1	1	0
90		1	1	1	1	1	1	1	1	0	1	1	1	0

Running title: Virulence genes of *S. aureus* in ocular conditions

91		0	1	1	1	0	1	0	1	0	1	1	1	0
92		0	1	1	1	0	0	1	1	1	1	1	1	0
93		0	0	1	1	0	1	1	1	0	1	1	1	0
94		0	0	1	1	0	1	0	1	1	1	1	1	0
95		0	1	1	1	0	1	1	1	1	1	1	0	0
96		0	0	1	1	0	1	1	0	1	1	1	1	0
97		1	1	1	1	0	1	1	1	1	1	1	1	0
98		1	0	1	1	0	1	1	1	1	1	1	1	0
99		1	1	1	1	0	0	1	1	1	1	1	0	0
100		1	1	1	1	0	0	1	1	1	1	1	1	0
101		1	1	1	1	0	1	1	1	0	1	1	1	1
102		1	1	1	1	0	1	1	1	1	1	1	1	0
103		1	1	1	1	0	1	1	1	0	1	1	1	1
104		1	1	1	1	0	1	1	1	1	1	1	1	0
105		1	1	1	1	0	1	1	1	1	1	1	1	0
Frequency		54%	82%	100%	100%	32%	82%	82%	77%	68%	100%	100%	86%	18%
46	Conj. AUS	0	1	1	1	1	1	1	1	0	1	1	1	0
134		0	1	1	1	1	1	1	1	1	1	1	1	0
136		0	0	1	1	1	1	1	1	0	1	1	1	0
140		0	1	1	1	1	1	1	1	1	1	1	1	0
Frequency		0%	75%	100%	100%	100%	100%	100%	100%	50%	100%	100%	100%	0%
12	niCIE	0	1	1	1	0	0	1	1	0	1	1	0	0
20		0	0	1	1	1	1	1	1	1	1	1	0	1
24		0	1	1	1	0	0	0	1	0	1	0	1	1
25		0	1	1	1	1	1	1	1	1	1	1	1	0
27		0	1	1	1	1	1	1	1	0	1	1	1	0
28		0	1	1	1	1	1	1	0	1	1	1	0	0
32		0	1	1	1	1	1	1	1	0	1	1	1	0
33		0	1	1	1	1	1	1	0	0	1	0	0	0
48		0	1	1	1	1	1	1	1	0	1	1	0	0
117		0	1	1	1	1	0	1	1	0	1	1	0	0
26		0	1	1	1	1	1	0	1	0	1	1	0	0
29		1	1	1	1	1	1	0	1	0	1	1	1	0
31		0	1	1	1	1	1	1	1	0	1	1	1	0
41		0	1	1	1	1	1	1	1	0	1	1	1	0
Frequency		7%	93%	100%	100%	86%	78%	78%	86%	21%	100%	86%	50%	14%