FIG. S1. Placement of the *E. anopheles* MSU001 16S rRNA sequence into a phylogenetic tree, revealing affinity with *E. anophelis*. An approximately 1.3-kb region of the 16S rRNA gene was amplified using forward primer 63f and reverse primer 1387r and sequenced (Materials and Methods). The phylogenetic tree was constructed by neighbor-joining analysis of partial 16S rRNA sequences according to MEGA version 5.2 (54). The bar represents 2% sequence divergence. The GenBank accession numbers for 16s rRNA sequences for selected strains are listed in parenthesis.

FIG. S2. Time course of growth in WT, SCH814 and SCH837. The cells were grown in LB, sampled at the specific time point and determined the OD600nm.

FIG. S3. Properties of NanoLuc reporter in *E. anophelis* and its application. (A) NanoLuc-tagged *E. anophelis* was grown in LB. Growth was determined by measuring OD_{600nm}. (B) Expression of *nluc* under promoter P*ompA*. NanoLuc luciferase was determined in *E. anophelis* sampled at the specific time points according to the procedures described in Methods and Materials. (C) Effects of the growth phase on relative luciferase activity. The relative activity was expressed as normalization of the total luciferase activity with OD_{600nm}. (D) Relationship between the CFUs and NanoLuc activity.

FIG. S4. Comparisons of SCH814 in the male and female mosquitoes. Male or female mosquitoes were fed with 10% of sucrose supplemented with SCH814. After 24 hours, the sugar diet was replaced with fresh sterile sucrose without SCH814. The male (4 adults) and female (4 adults) mosquitoes were randomly sampled on days 1, 3 and 14. Mosquito samples were processed and NanoLuc reporter activity was determined as described in Materials and Methods.

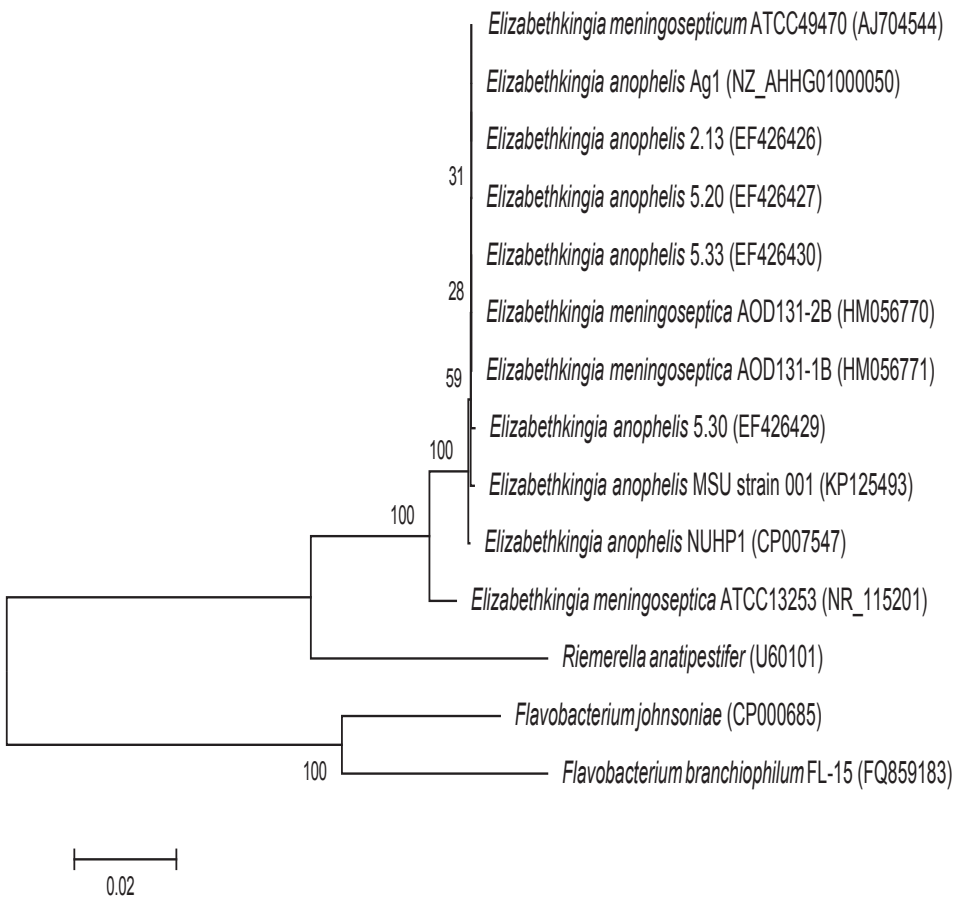
Elizabethkingia meningosepticum ATCC49470 (AJ704544)
Elizabethkingia anophelis Ag1 (NZ_AHHG01000050)
Elizabethkingia anophelis 2.13 (EF426426)
31
Elizabethkingia anophelis 5.20 (EF426427)
Elizabethkingia anophelis 5.33 (EF426430)
28
Elizabethkingia meningoseptica AOD131-2B (HM056770)
59
Elizabethkingia meningoseptica AOD131-1B (HM056771)
Elizabethkingia anophelis 5.30 (EF426429)
100
Elizabethkingia anophelis MSU strain 001 (KP125493)
100
Elizabethkingia anophelis NUHP1 (CP007547)
Elizabethkingia meningoseptica ATCC13253 (NR_115201)
Riemerella anatipestifer (U60101)
Flavobacterium johnsoniae (CP000685)
100
Flavobacterium branchiophilum FL-15 (FQ859183)
0.02

Fig.S1

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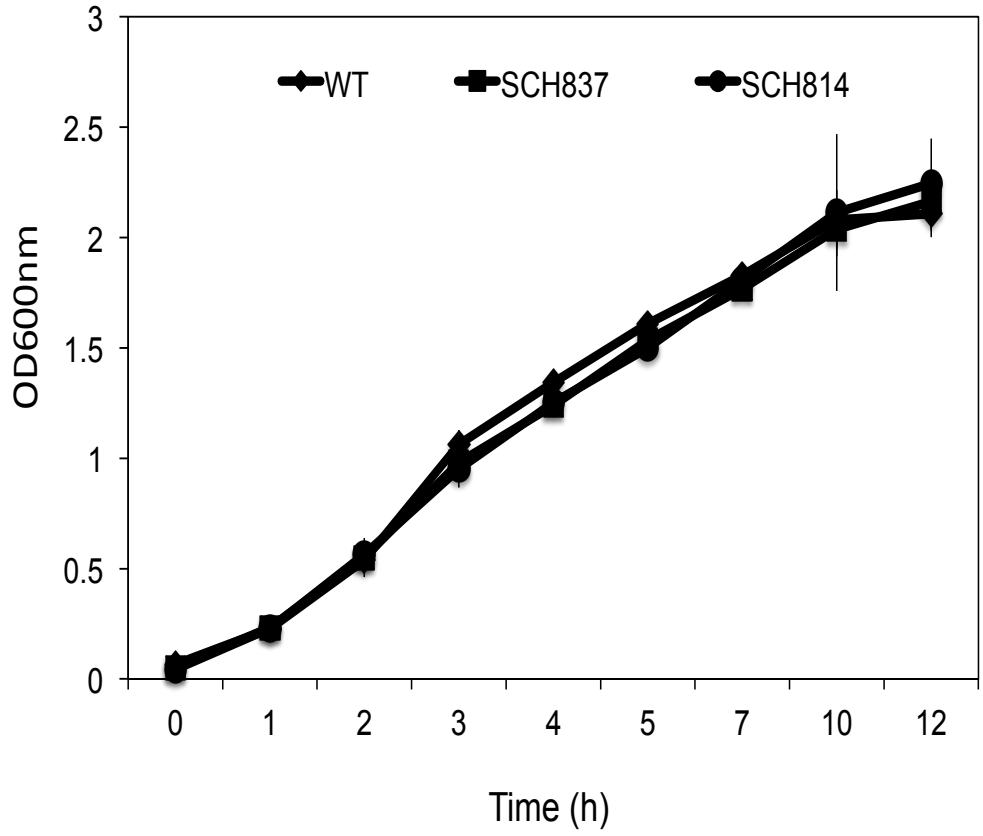
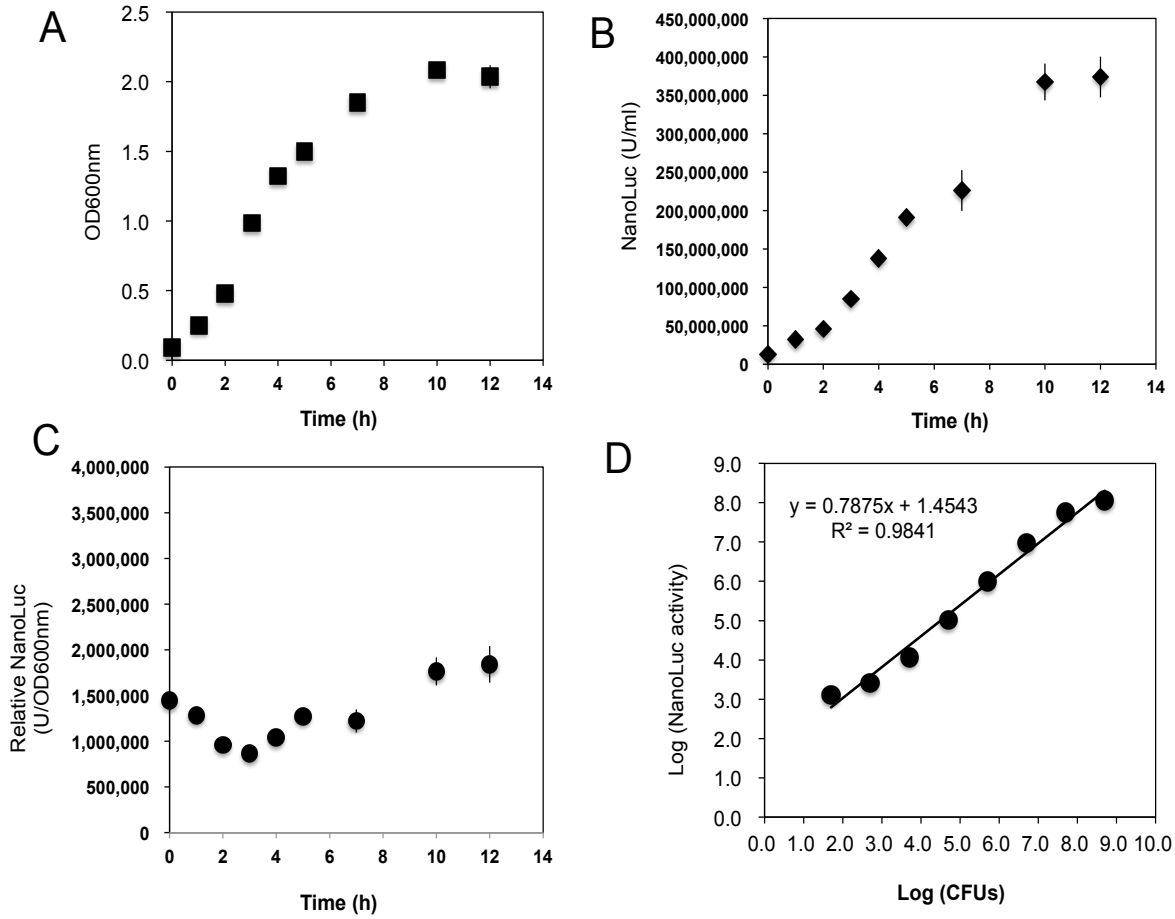


30

31 Fig.S2

32



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34 Fig.S3

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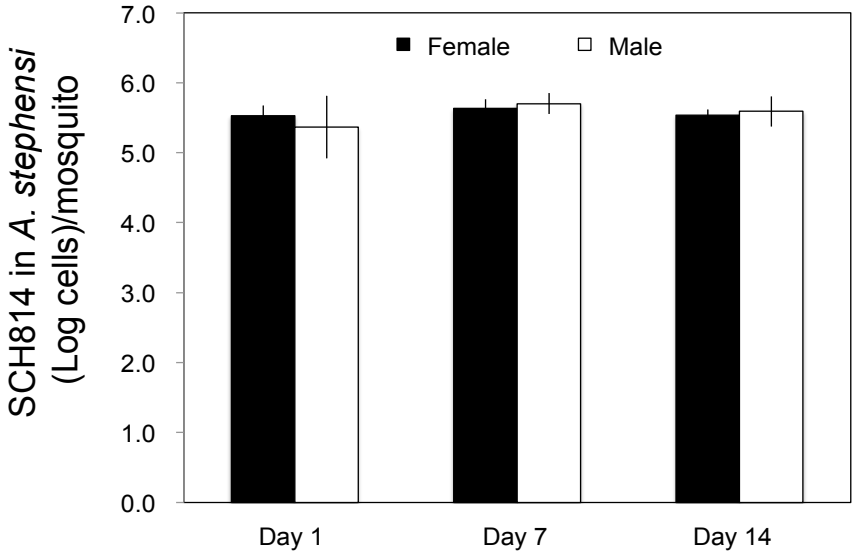
SCH814 in A. stephensi
(Log cells)/mosquito
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
Female
Male
Day 1
Day 7
Day 14

Fig.S4