METHODS
Pvclust and bootstrap definitions

Both pvclust and bootstrapping are common measures used to generate statistical support for clustering of data based on phenotypic/genotypic data. Pvclust is a hierarchical cluster analysis program. This program is a way to generate support for the clustering of samples based on the input data. The program does 100 or 1000 randomizations of the data and will determine the percentage support for each of the clusters generated. The higher the support for a cluster, the more robust is the clustering of the samples. Bootstrapping is also a similar statistical process in which random samples are drawn from the existing data to see how well the clustering of asthmatic versus nonasthmatic subjects is supported.

Primers for amplifying the V6 region of bacterial 16s rDNA

Forward primers. Primer1F: 5′ - GCCTCCCTCGCGCCATCAGAGCTACAACGCGAAGAACCTTACC - 3′, Primer2F: 5′ - GCCTCCCTCGCGCCATCAGAGACTCAACGCGAAGAACCTTACC - 3′, Primer3F: 5′ - GCCTCCCTCGCGCCATCAGCTAGACAACGCGAAGAACCTTACC - 3′, Primer4F: 5′ - GCCTCCCTCGCGCCATCAGCTGCACAACGCGAAGAACCTTACC - 3′, Primer5F: 5′ - GCCTCCCTCGCGCCATCAGTCGACCAACG CGAAGAACCTTACC - 3′, Primer6F: 5′ - GCCTCCCTCGCGCCATCAGTCTGACAACGCGAAGAACCTTACC - 3′, Primer7F: 5′ - GCCTCCCTCGCGCCATCAGGCATCCAACGCGAAGAACCTTACC - 3′, Primer8F: 5′ - GCCTCCCTCGCGCCATCAGGATACCAACGCGAAGAACCTTACC - 3′, Primer9F: 5′ - CGTATCGCCTCCCTCGCGCCATCAGTCAGACAACGCGAAGAACCTTACC - 3′, Primer10F: 5′ - CGTATCGCCTCCCTCGCGCCATCAGTACGACAACGCGAAGAACCTTACC - 3′, Primer11F: 5′ - CGTATCGCCTCCCTCGCGCCATCAGCTGACCAACGCGAAGAACCTTACC - 3′, Primer12F: 5′ - CGTATCGCCTCCCTCGCGCCATCAGCTCGACAACGCGAAGAACCTTACC - 3′, Primer13F: 5′ - CGTATCGCCTCCCTCGCGCCATCAGTCACGCAACGCGAAGAACCTTACC - 3′, Primer14F: 5′ - CGTATCGCCTCCCTCGCGCCATCAGCAGCTCAACGCGAAGAACCTTACC - 3′, Primer15F: 5′ - CGTATCGCCTCCCTCGCGCCATCAGCATATCAACGCGAAGAACCTTACC - 3′, Primer16F: 5′ - CGTATCGCCTCCCTCGCGCCATCAGAGCTCCAACGCGAAGAACCTTACC - 3′, Primer17F: 5′ - CGTATCGCCTCCCTCGCGCCATCAGAGTACCAACGCGAAGAACCTTACC - 3′, Primer18F: 5′ - CGTATCGCCTCCCTCGCGCCATCAGCTAGCCAACGCGAAGAACCTTACC - 3′, Primer19F: 5′ - CGTATCGCCTCCCTCGCGCCATCAGGAGCTCAACGCGAAGAACCTTACC - 3′, Primer20F: 5′ - CGTATCGCCTCCCTCGCGCCATCAGGACTACAACGCGAAGAACCTTACC - 3′.

Reverse primer. PrimerR: 5′ - GCCTTGCCAGCCCGCTCAGCGACAGCCATGCANCACCT - 3′.
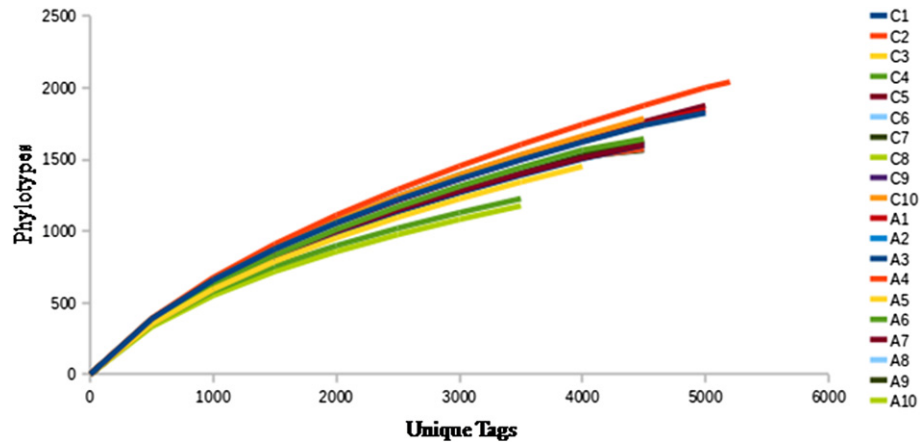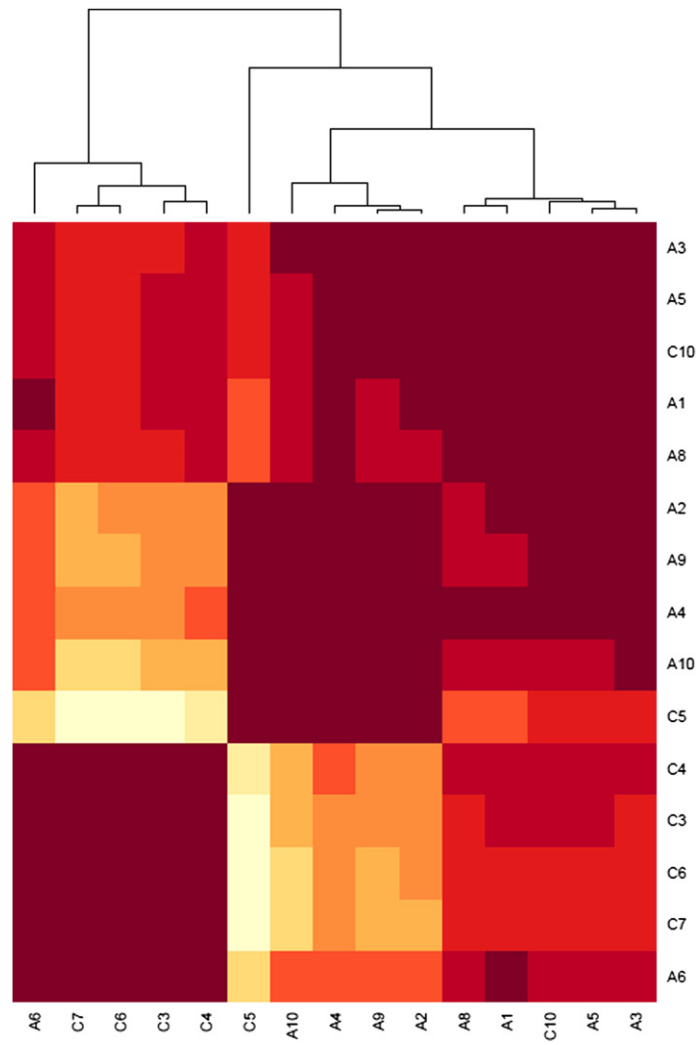
FIG E1. Rarefaction analysis for samples based on clustering the sequences at 97% identity.

FIG E2. Hierarchical clustering of samples from atopic asthmatic and nonasthmatic subjects. *A1-A10,* Samples from asthmatic patients; *C1-C10,* samples from nonasthmatic subjects.