# SPATIAL PATTERNS OF SUBSTITUTIONS IN BACTERIAL GENOMES

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#### Abstract

Materials and Methods

Results

Discussion

Acknowledgements

### Figures

# Supplementary Figures

# Logistic Regression

COG Abbreviation	COG Category	E. coli Chromosome
C	Energy Production and Conversion	$2.40 \times 10^{-7}$
E	Amino Acid Transport and Metabolism	$4.53 \times 10^{-7}$
F	Nucleotide Transport and Metabolism	NA
G	Carbohydrate Transport and Metabolism	NA
H	Coenzyme Transport and Metabolism	NA
I	Lipid Transport and Metabolism	$4.51 \times 10^{-7}$
J	Translation, Ribosomal Structure and Biogenesis	NA
K	Transcription	$2.22 \times 10^{-7}$
L	Repliction, Recombination and Repair	$2.95 \times 10^{-7}$
M	Cell Wall/Membrane/Envelope Biogenesis	NA
N	Cell Motility	$-7.74 \times 10^{-7}$
O	Posttranslational Modification, Protein Tunover, Chaperones	$3.37 \times 10^{-7}$
P	Inorganic Ion Transport and Metabolism	NA
Q	Secondary Metabolites Biosynthesis, Transport and Catabolism	NA
T	Signl Transduction Mechanisms	NA
U	Intracellular Trafficking, Secretion, and Vesicular Transport	NA
V	Defense Mechanisms	$3.75 \times 10^{-7}$
W	Extracellular Structures	$-3.23 \times 10^{-6}$
X	Mobilome: Prophages, Transposons	$-1.09 \times 10^{-6}$
R	General Function Prediction Only	$2.61 \times 10^{-7}$
S	Function Unknown	$-1.43 \times 10^{-6}$