

# SOMETHING COG

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## **Abstract**

## **Materials and Methods**

## **Results**

## **Discussion**

## **Acknowledgements**

## Figures

## Supplementary Figures

# Logistic Regression

COG Abbreviation	COG Category	<i>E. coli</i> Chromosome	<i>B. subtilis</i> Chromosome	<i>Streptomyces</i> Chromosome	<i>S. meliloti</i> Chromosome	<i>S. meliloti</i> pSynA
C	Energy Production and Conversion	$2.40 \times 10^{-7}$	$4.10 \times 10^{-7}$	$-2.94 \times 10^{-7}$	NA	NA
E	Amino Acid Transport and Metabolism	$4.53 \times 10^{-7}$	NA	$-1.97 \times 10^{-7}$	$2.66 \times 10^{-7}$	$-2.08 \times 10^{-6}$
F	Nucleotide Transport and Metabolism	NA	$-7.49 \times 10^{-7}$	$-1.86 \times 10^{-7}$	$-6.68 \times 10^{-7}$	$-1.15 \times 10^{-6}$
G	Carbohydrate Transport and Metabolism	NA	NA	NA	$-2.53 \times 10^{-7}$	$9.78 \times 10^{-7}$
H	Coenzyme Transport and Metabolism	NA	$-4.07 \times 10^{-7}$	$-1.11 \times 10^{-7}$	$-1.20 \times 10^{-6}$	$-9.83 \times 10^{-7}$
I	Lipid Transport and Metabolism	$4.51 \times 10^{-7}$	$3.74 \times 10^{-7}$	$-2.01 \times 10^{-7}$	NA	$2.01 \times 10^{-6}$
J	Translation, Ribosomal Structure and Biogenesis	NA	$-7.13 \times 10^{-7}$	$-1.36 \times 10^{-7}$	$1.23 \times 10^{-6}$	$-1.51 \times 10^{-6}$
K	Transcription	$2.22 \times 10^{-7}$	$7.62 \times 10^{-7}$	NA	NA	NA
L	Replication, Recombination and Repair	$2.95 \times 10^{-7}$	NA	$-1.17 \times 10^{-7}$	NA	$1.42 \times 10^{-6}$
M	Cell Wall/Membrane/Envelope Biogenesis	NA	$5.18 \times 10^{-7}$	$-8.05 \times 10^{-8}$	$4.59 \times 10^{-7}$	$1.63 \times 10^{-6}$
N	Cell Motility	$-7.74 \times 10^{-7}$	$1.01 \times 10^{-6}$	$-2.04 \times 10^{-7}$	NA	NA
O	Posttranslational Modification, Protein Turnover, Chaperones	$3.37 \times 10^{-7}$	$3.51 \times 10^{-7}$	$-7.75 \times 10^{-8}$	$3.47 \times 10^{-7}$	NA
P	Inorganic Ion Transport and Metabolism	NA	NA	$-1.68 \times 10^{-7}$	$5.36 \times 10^{-7}$	NA
Q	Secondary Metabolites Biosynthesis, Transport and Catabolism	NA	NA	NA	NA	$4.28 \times 10^{-6}$
T	Signal Transduction Mechanisms	NA	NA	$1.52 \times 10^{-7}$	$1.85 \times 10^{-6}$	NA
U	Intracellular Trafficking, Secretion, and Vesicular Transport	NA	NA	NA	$8.62 \times 10^{-7}$	NA
V	Defense Mechanisms	$3.75 \times 10^{-7}$	$7.15 \times 10^{-7}$	$-1.21 \times 10^{-7}$	$4.24 \times 10^{-7}$	NA
W	Extracellular Structures	$-3.23 \times 10^{-6}$	NA	$9.06 \times 10^{-7}$	NA	NA
X	Mobilome: Prophages, Transposons	$-1.09 \times 10^{-6}$	$-1.81 \times 10^{-6}$	$4.32 \times 10^{-7}$	$1.67 \times 10^{-6}$	NA
R	General Function Prediction Only	$2.61 \times 10^{-7}$	$3.20 \times 10^{-7}$	$-6.91 \times 10^{-8}$	$9.49 \times 10^{-7}$	NA
S	Function Unknown	$-1.43 \times 10^{-6}$	$-1.19 \times 10^{-6}$	$4.62 \times 10^{-7}$	$-7.44 \times 10^{-7}$	$2.53 \times 10^{-5}$