



ACKNOWLEDGEMENT

"What people forget is a journey to nowhere begin with a single too". At this point when I am about to submit my thesis it reminds me the perseverance and patience which kept this journey on and to complete it satisfactorily. This journey would not have been so magnificent without the support and efforts of numerous people. Hence before moving further I would like to acknowledge all those who supported and helped me in their small way making this journey an experience I will always cherish.

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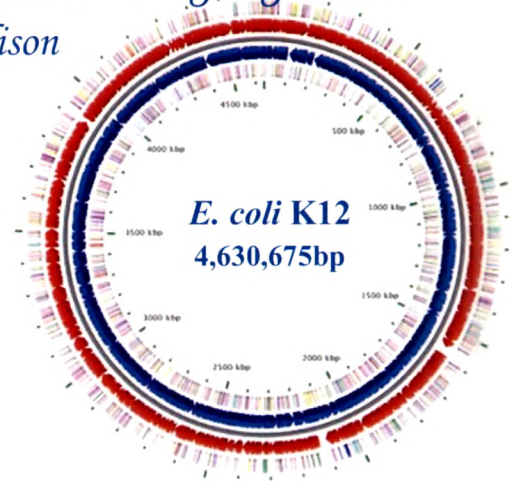
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Jisha Elias

the biological
genome
nism.

E coli K12 complete genome



Genes encoding proteins

- Forward strand
- Reverse strand

Genes encoding functional RNA

- Forward strand
- Reverse strand

COG functional categories

Information storage and processing

- Translation, ribosomal structure and biogenesis
- Transcription
- DNA replication, recombination and repair

Cellular processes

- Cell division and chromosome partitioning
- Posttranslational modification, protein turnover, chaperones
- Cell envelope biogenesis, outer membrane
- Cell motility and secretion
- Inorganic ion transport and metabolism
- Signal transduction mechanisms

Metabolism

- Energy production and conversion
- Carbohydrate transport and metabolism
- Amino acid transport and metabolism
- Nucleotide transport and metabolism
- Coenzyme metabolism
- Lipid metabolism
- Secondary metabolites biosynthesis, transport and catabolism

Poorly characterized

- General function prediction only
- Function unknown

-Gavin Thomas