Sequence of E.coli K12 valU operon which contains 3 genes for tRNA^{Val} and 1 gene for tRNA^{Lys}

Michael O'Connor^{1,2}*, Raymond F.Gesteland¹ and John F.Atkins^{1,2}

¹Howard Hughes Medical Institute and Department of Human Genetics, University of Utah, Salt Lake City, UT 84132, USA and ²Department of Biochemistry, University College, Cork, Ireland

Submitted December 22, 1989

EMBL accession no. X17321

The operon order is 5' val $U\alpha$ val $U\beta$ val $U\gamma$ lysV 3'. The gene locations are $valU\alpha$ 46-121, $valU\beta$ 166-241, $valU\gamma$ 287-362, lys V 367 – 442, and are indicated in bold type. Putative – 35 and -10 sequences are underlined. The sequence from 342-442. which includes the lysV (supNWT) gene, and 49 nucleotides downstream including a possible transcription terminator was previously published (1). Transcription studies in this region have been performed by Y.Brun, R.Breton, P.Lanouette and J. LaPointe (manuscript in preparation). The valU operon is located at position 52 on the chromosome (1, 2). Two other genes for tRNALys and one other for tRNAVal are located at minute 16.5 **(3)**.

ACKNOWLEDGEMENTS

We thank Dr J.LaPointe for his gracious comments. This work was supported by National Science Foundation Grant DMG-8408649, and by the Howard Hughes Medical Institute.

REFERENCES

- 1. Uemura, H., Thorbiarnardottir, S., Gamulin, V., Yano, J., Andrésson, O.S., Söll, D. and Eggertsson, G. (1985) J. Bacteriol. 163, 1288-1289.
- O'Connor, M., Gesteland, R.F. and Atkins, J.F. (1989) EMBO J. 8, in press.
- 3. Fournier, M.J. and Ozeki, H. (1985) Microbiol. Rev. 49, 379-397.
- 1 TTGACTCATT TTGAACTCTC CCTATAATGC GACTCCACAC AGCGGGGTG ATTAGCTCAG 61 CTGGGAGAGC ACCTCCCTTA CAAGGAGGG GTCGGCGGTT CGATCCCGTC ATCACCCACC 121 AACTACTTTA TGTAGTCTCC GCCGTGTAGC AAGAAATTGA GAAGTGGGTG ATTAGCTCAG 181 CTGGGAGAGC ACCTCCCTTA CAAGGAGGG GTCGGCGGTT CGATCCCGTC ATCACCCACC 241 ACTTCTCGCC AGCTAAATTT CTTGTATAAA TGTGAAGTAC AGAAGTGGGT GATTAGCTCA 301 GCTGGGAGAG CACCTCCCTT ACAAGGAGGG GGTCGGCGGT TCGATCCCGT CATCACCCAC 361 CACTTCGGGT CGTTAGCTCA GTTGGTAGAG CAGTTGACTT TTAATCAATT GGTCGCAGGT 421 TCGAATCCTG CACGACCCAC CA