Laszlo N. Csonka
Curriculum Vitae

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Education

B.A.	Mathematics	State University of New York at Buffalo	1969
Ph.D.	Microbiology	Harvard University	1979

Academic Positions

Assistant Professor, Purdue University	1982-1988
Associate Professor, Purdue University	1988-1999
Professor, Purdue University	1999-present

Postdoctoral and Visiting Positions

NIH Postdoctoral fellow, University of California, Berkeley	1975-1977
Postdoctoral fellow, University of California, Davis	1977-1982

Professional Organizations

Member of Editorial Board: Journal of Bacteriology; 1995-1997

Publications

1. May M, Csonka L, Garrison R, Triggle DJ. 1969. The analgsic hypothermic and depressant activities of some N-substituted-5, 9-dimethyl-6,7-benzomorphans. J. Pharm. Sci. 57:884-886.
2. Coppens P, Csonka L, Willoughby TV. 1970. Electron Population Parameters from Least-Squares Refinement of X-ray Diffraction Data. Science 167(3921):1126-1128.

3. Coppens P, Willoughby TV, Csonka LN. 1971. Electron population analysis of accurate diffraction data. I. Formalisms and restrictions. 27(3):248-256.
4. Csonka LN. 1975. The Sources of Reducing Power in Escherichia Coli Klz. Harvard University;
5. Csonka LN. 1977. Use of 3H and 14C double-labeled glucose to assess in vivo pathways of amino acid biosynthesis in Escherichia coli. J Biol Chem 252(10):3392-8.
6. Csonka LN, Fraenkel DG. 1977. Pathways of NADPH formation in Escherichia coli. J Biol Chem 252(10):3382-91.
7. Csonka LN. 1979. The role of L-proline in response to osmotic stress in Salmonella typhimurium: selection of mutants with increased osmotolerance as strains which over-produce L-proline. Basic Life Sci 14:35-52.
8. Csonka LN, Clark AJ. 1979. Deletions generated by the transposon Tn10 in the srl recA region of the Escherichia coli K-12 chromosome. Genetics 93(2):321-43.
9. Andersen K, Shanmugam KT, Lim ST, Csonka LN, Tait R, Hennecke H, Scott DB, Hom SSM, Haury JF, Valentine A and others. 1980. Genetic-Engineering in Agriculture with Emphasis on Nitrogen-Fixation. Trends in Biochemical Sciences 5(2):35-39.
10. Csonka L, Vadasz K. 1980. [Late diagnosis of isolated single stage traumatic splenic rupture]. Orv Hetil 121(21):1279-80.
11. Csonka LN, Clark AJ. 1980 Construction of an Hfr strain useful for transferring recA mutations between Escherichia coli strains. J Bacteriol 43(1):529-30.
12. Csonka LN. 1981 Proline over-production results in enhanced osmotolerance in Salmonella typhimurium. Mol Gen Genet 182(1):82-6.
13. Csonka LN. 1981. The role of proline in osmoregulation in Salmonella typhimurium and Escherichia coli. Basic Life Sci 18:533-42.
14. Csonka LN, Howe MM, Ingraham JL, Pierson LS, 3rd, Turnbough CL, Jr. 1981. Infection of Salmonella typhimurium with coliphage Mu d1 (Apr lac): construction of pyr::lac gene fusions. J Bacteriol 145(1):299-305.
15. Csonka LN. 1982. A third L-proline permease in Salmonella typhimurium which functions in media of elevated osmotic strength. J Bacteriol 151(3):1433-43.
16. Le Rudulier D, Yang SS, Csonka LN. 1982. Nitrogen fixation in Klebsiella pneumoniae during osmotic stress. Effect of exogenous proline or a proline overproducing plasmid. Biochim Biophys Acta 719(2):273-83.
17. Rains DW, Csonka LN, Le Rudulier D, Croughan TP, Yang SS, Stavarek SJ, Valentine RC. 1982. Osmoregulation by organisms exposed to saline stress: physiological mechanisms and genetic manipulation. 283-302.
18. Csonka LN. 1983. The Role of Proline in Bacteria under Conditions of Osmotic-Stress. In Vitro-Journal of the Tissue Culture Association 19(3):261-261.
19. Csonka LN, Baich A. 1983. Proline biosynthesis.
20. Mahan MJ, Csonka LN. 1983. Genetic analysis of the proBA genes of Salmonella typhimurium: physical and genetic analyses of the cloned proB+ A+ genes of Escherichia coli and of a mutant allele that confers proline overproduction and enhanced osmotolerance. J Bacteriol 156(3):1249-62.
21. Dunlap VJ, Csonka LN. 1985. Osmotic regulation of L-proline transport in Salmonella typhimurium. J Bacteriol 163(1):296-304.
22. Brady RA, Csonka LN. 1988. Transcriptional regulation of the proC gene of Salmonella typhimurium. J Bacteriol 170(5):2379-82.
23. Csonka LN. 1988. Regulation of cytoplasmic proline levels in Salmonella typhimurium: effect of osmotic stress on synthesis, degradation, and cellular retention of proline. J Bacteriol 170(5):2374-8.

24. Csonka LN, Gelvin SB, Goodner BW, Orser CS, Siemieniak D, Slightom JL. 1988. Nucleotide sequence of a mutation in the proB gene of Escherichia coli that confers proline overproduction and enhanced tolerance to osmotic stress. Gene 64(2):199-205.
25. Goodner BW, Johnston M, Gelvin SB, Csonka LN. 1988. The Escherichia-Coli Pro-B Gene Corrects the Proline Auxotrophy of Saccharomyces-Cerevisiae Pro-1 Mutants. Molecular and General Genetics 212(1):124-128.
26. Csonka LN. 1989. Physiological and genetic responses of bacteria to osmotic stress. Microbiol Rev 53(1):121-47.
27. Overdier DG, Olson ER, Erickson BD, Ederer MM, Csonka LN. 1989. Nucleotide sequence of the transcriptional control region of the osmotically regulated proU operon of Salmonella typhimurium and identification of the 5' endpoint of the proU mRNA. J Bacteriol 171(9):4694-706.
28. Csonka LN, Hanson AD. 1989. Prokaryotic osmoregulation: genetics and physiology. Annu Rev Microbiol 45:569-606.
29. Larosa PC, Rhodes D, Rhodes JC, Bressan RA, Csonka LN. 1991. Elevated Accumulation of Proline in NaCl-Adapted Tobacco Cells Is Not Due to Altered Delta-Pyrroline-5-Carboxylate Reductase. Plant Physiol 96(1):245-250.
30. Rhodes D, Rhodes JC, Bressan RA, Csonka LN. 1991. Correction of Ba 92045750. Elevated Accumulation of Proline in Sodium Chloride Adapted Tobacco Cells Is Not Due to Altered Delta-1 Pyrroline-5-Carboxylate Reductase Correction of Abstract. Erratum Published in Plant Physiol Bethesda Vol. 96. Iss. 4. 1991. P. 1398. Plant Physiology (Rockville) 96(1):245-250.
31. Csonka LN. 1992. A Transcriptional Silencer Downstream of the Promoter in the Osmotically Controlled Prou Operon of Salmonella-Typhimurium. Proceedings of the National Academy of Sciences of the United States of America 89(7):3140-3144.
32. Overdier DG, Csonka LN. 1992. A transcriptional silencer downstream of the promoter in the osmotically controlled proU operon of Salmonella typhimurium. Proc Natl Acad Sci U S A 89(7):3140-4.
33. Guttierez JA, Csonka LN. 1993 The involvement of adenylate kinase in the utilization of glycine betaine as an osmoprotectant in Salmonella typhimurium. An American Society of Plant Physiologists Series, Rockville, MD, USA; 1 p 21-29.
34. Csonka LN, Ikeda TP, Fletcher SA, Kustu S. 1994. The accumulation of glutamate is necessary for optimal growth of Salmonella typhimurium in media of high osmolality but not induction of the proU operon. J Bacteriol 176(20):6324-33.
35. Fletcher SA, Csonka LN. 1995. Fine-structure deletion analysis of the transcriptional silencer of the proU operon of Salmonella typhimurium. J Bacteriol 177(15):4508-13.
36. Gutierrez JA, Csonka LN. 1995. Isolation and characterization of adenylate kinase (adk) mutations in Salmonella typhimurium which block the ability of glycine betaine to function as an osmoprotectant. J Bacteriol 177(2):390-400.
37. Canovas D, Vargas C, Csonka LN, Ventosa A, Nieto JJ. 1996. Osmoprotectants in Halomonas elongata: high-affinity betaine transport system and choline-betaine pathway. J Bacteriol 178(24):7221-6.
38. Csonka LN, Epstein W. 1996. Osmoregulation. 1210–1223.
39. Zhang X, Fletcher SA, Csonka LN. 1996. Site-directed mutational analysis of the osmotically regulated proU promoter of Salmonella typhimurium. J Bacteriol 178(11):3377-9.
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46. Kultz D, Csonka L 1999. What sets the TonE during osmotic stress? Proc Natl Acad Sci U S A 96(5):1814-6.
47. Canovas D, Fletcher SA, Hayashi M, Csonka LN. 2001. Role of trehalose in growth at high temperature of Salmonella enterica serovar Typhimurium. J Bacteriol 183(11):3365-71.
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53. Oren A, Larimer F, Richardson P, Lapidus A, Csonka LN. 2005. How to be moderately halophilic with broad salt tolerance: clues from the genome of Chromohalobacter salexigens. 9(4):275-279.
54. Garcia-Estepa R, Canovas D, Iglesias-Guerra F, Ventosa A, Csonka LN, Nieto JJ, Vargas C. 2006. Osmoprotection of Salmonella enterica serovar Typhimurium by Ngamma-acetyldiaminobutyrate, the precursor of the compatible solute ectoine. Syst Appl Microbiol 29(8):626-33.
55. Smith MJ, Sheehan PE, Perry LL, O'Connor K, Csonka LN, Applegate BM, Whitman LJ. 2006. Quantifying the magnetic advantage in magnetotaxis. Biophys J 91(3):1098-107.
56. Krichevsky A, Smith MJ, Whitman LJ, Johnson MB, Clinton TW, Perry LL, Applegate BM, O'Connor K, Csonka LN. 2007. Trapping motile magnetotactic bacteria with a magnetic recording head. Journal of Applied Physics 101(1):.