

## Publications, Robert Osuna

- Shao, Y., L. S. Feldman-Cohen, and R. Osuna. **2008**. Biochemical identification of base and phosphate contacts between Fis and a high-affinity DNA binding site. *J. Mol. Biol.* 380: 327-339. [\[abstract\]](#)
- Shao, Y., L. S. Feldman-Cohen, and R. Osuna. **2008**. Functional characterization of the *Escherichia coli* Fis-DNA binding sequence. *J. Mol. Biol.* 376:771-785. [\[abstract\]](#)
- Bradley, M. D., M. B. Beach, A. P. Jason de Koning, T. S. Pratt, and **R. Osuna**. Effect of Fis on *Escherichia coli* gene expression during different growth stages. 2007. *Microbiology* 153:2922-2940. [\[abstract\]](#)
- Mallik, P., B. J. Paul, S. T. Rutherford, R. L. Gourse, and R. Osuna. **2006**. *DksA* is required for growth phase-dependent regulation, growth-rate control, and stringent control of *fis* expression in *Escherichia coli*. *J. Bacteriol.* 188:5775-5782. [\[abstract\]](#)
- Meinhold, D., M. Beach, Y. Shao, R. Osuna, and W. Colón. **2006**. The location of an engineered inter-subunit disulfide bond in FIS affects the denaturation pathway and cooperativity. *Biochemistry* 45:9767-9777. [\[abstract\]](#)
- Feldman-Cohen, L. S., Y. Shao, D. Meinhold, C. Miller, W. Colón, and R. Osuna. **2006**. Common and variable contributions of Fis residues to high-affinity binding at different DNA sequences. *J. Bacteriol.* 188:2081-2095. [\[abstract\]](#)
- Walker, K. A., P. Mallik, T. S. Pratt, and R. Osuna. **2004**. The *Escherichia coli fis* promoter is regulated by changes in the levels of its transcription initiation nucleotide CTP. *J. Biol. Chem.* 279:50818-50828. [\[abstract\]](#)
- Mallik, P., T. S. Pratt, M. B. Beach, M. D. Bradley, J. Undamatla, and R. Osuna. **2004**. Growth phase-dependent regulation and stringent control of *fis* are conserved processes in enteric bacteria and involve a single promoter ( *fis* P) in *Escherichia coli* . *J. Bacteriol.* 186:122- 135. [\[abstract\]](#)
- Boswell, S., J. Matthew, M. Beach, R. Osuna, and W. Colón. **2004**. Variable contributions of tyrosine residues to the structural and spectroscopic properties of the factor for inversion stimulation. *Biochemistry* 43:2964-2977. [\[abstract\]](#)
- Walker, K.A., and R. Osuna. **2002**. Factors affecting start site selection at the *Escherichia coli fis* promoter. *J. Bacteriol.* 184:4783-4791. [\[abstract\]](#)
- Hobart, S.A., W. Meinfeld, R. Osuna, and W. Colon. **2002**. From two-state to three-state: effect of P61A mutation on the dynamics and stability of the factor for inversion stimulation results in an altered equilibrium denaturation mechanism. *Biochemistry* 41:13744-13754. [\[abstract\]](#)
- Hobart, S.A., S. Ilin, D.F. Moriarty, **R. Osuna**, and W. Colon. 2002. Equilibrium denaturation studies of the *Escherichia coli* factor for inversion stimulation: implications for in vivo function. *Protein Science* 11:1671-1680. [\[abstract\]](#)
- Walker, K.A., C.L. Atkins, and **R. Osuna**. **1999**. Functional determinants of the *Escherichia coli fis* promoter: roles of -35, -10, and transcription initiation regions in the response to stringent control and growth phase-dependent regulation. *J. Bacteriol.* 181:1269-1280. [\[abstract\]](#)
- Beach, M.B., and **R. Osuna**. **1998**. Identification and characterization of the *fis* operon in enteric bacteria. *J. Bacteriol.* 180:5932-5946. [\[abstract\]](#)
- Pratt, T.S., T. Steiner , L.S. Feldman, K.A. Walker, and R. Osuna. **1997**. Deletion analysis of the *fis* promoter region in *Escherichia coli*: antagonistic effects of integration host factor and Fis. *J.*

*Bacteriol.* 179:6367-6377 [\[abstract\]](#)

- Osuna, R., D. Lineau, K. T. Hughes, and R. C. Johnson. **1995**. Sequence, regulation, and functions of *fis* in *Salmonella typhimurium*. *J. Bacteriol.* 177: 2021-2032. [\[abstract\]](#)
- Gosink, K. K., W. Ross, S. Leirmo, R. Osuna, S. E. Finkel, R. C. Johnson, and R. L. Gourse. **1993**. DNA binding and bending are necessary but not sufficient for Fis-dependent activation of *rrnB* P1. *J. Bacteriol.* 175:1580-1589. [\[abstract\]](#)
- Ball, C. A., R. Osuna, K. C. Ferguson, and R. C. Johnson. **1992**. Dramatic changes in Fis levels upon nutrient upshift in *Escherichia coli*. *J. Bacteriol.* 174:8043-8056. [\[abstract\]](#)
- Osuna, R., S. E. Finkel, and R. C. Johnson. **1991**. Identification of two functional regions in Fis: the N-terminus is required to promote Hin-mediated DNA inversion but not lambda excision. *EMBO J.* 10:1593-1603. [\[abstract\]](#)
- Osuna, R., B. K. Janes, and R. A. Bender. **1994**. Roles of Catabolite Activator Protein sites centered at -81.5 and -41.5 in the activation of the *Klebsiella aerogenes* histidine utilization operon *hutUH*. *J. Bacteriol.* 176:5513-5524. [\[abstract\]](#)
- Osuna, R., A. Schwacha, and R. A. Bender. **1994**. Identification of the *hutUH* operator (*hutUO*) from *Klebsiella aerogenes* by DNA deletion analysis. *J. Bacteriol.* 176:5525-5529. [\[abstract\]](#)
- Osuna, R. and R. A. Bender. **1991**. *Klebsiella aerogenes* catabolite gene activator protein and the gene encoding it (*crp*). *J. Bacteriol.* 173:6626-663. [\[abstract\]](#)
- Osuna, R., S. A. Boylan, and R. A. Bender. **1991**. In vitro transcription of the histidine utilization (*hutUH*) operon from *Klebsiella aerogenes*. *J. Bacteriol.* 173:116-123. [\[abstract\]](#)
- Morales, M.H., R. Osuna, and E. Sanchez. **1991**. Vitellogenesis in *Anolis pulchellus*: induction of VTG-like protein in liver explants from male and immature lizards. *J. Exp. Zool.* 260:50-8. [\[abstract\]](#)