

## Supplementary Table S1 – New interactions predicted in the 30% precision LeMoNe network validated by literature search

MODULE	REGULATOR	GENE	EVIDENCE TYPE	REFERENCE
5	Lrp	gdfA	ChIP-qPCR	Faith et al. (2007)
5	Lrp	hisA	microarray analysis	Hung et al. (2002)
5	Lrp	hisB	microarray analysis	Hung et al. (2002)
5	Lrp	hisC	microarray analysis	Hung et al. (2002)
5	Lrp	hisD	microarray analysis	Hung et al. (2002)
5	Lrp	hisF	microarray analysis	Hung et al. (2002)
5	Lrp	hisG	microarray analysis	Hung et al. (2002)
5	Lrp	hisH	microarray analysis	Hung et al. (2002)
5	Lrp	hisI	microarray analysis	Hung et al. (2002)
5	Lrp	pntA	ChIP-qPCR	Faith et al. (2007)
5	Lrp	pntB	ChIP-qPCR	Faith et al. (2007)
5	Lrp	ydlj	microarray analysis	Hung et al. (2002)
10	Lrp	aroG	ChIP-qPCR	Faith et al. (2007)
10	Lrp	leuB	microarray analysis (indirect influence of Lrp on expression of LeuABCD according to Landgraf et al. (1999))	Hung et al. (2002)
10	Lrp	pheA	microarray analysis	Hung et al. (2002)
10	Lrp	phel	microarray analysis	Hung et al. (2002)
10	Lrp	ChiP-qPCR	Faith et al. (2007)	
10	Lrp	thrA	ChiP-qPCR	Faith et al. (2007)
10	Lrp	thrB	ChiP-qPCR	Faith et al. (2007)
10	Lrp	thrC	ChiP-qPCR	Faith et al. (2007)
10	Lrp	yagU	ChiP-qPCR	Faith et al. (2007)
14	RpoS	amyA	microarray analysis	Weber et al. (2005)
14	RpoS	b0753	microarray analysis	Weber et al. (2005)
14	RpoS	b1953	microarray analysis	Weber et al. (2005)
14	RpoS	b2088	microarray analysis	Weber et al. (2005)
14	RpoS	b2086	microarray analysis	Weber et al. (2005)
14	RpoS	psfI	microarray analysis	Weber et al. (2005)
14	RpoS	wrbA	microarray analysis	Weber et al. (2005)
14	RpoS	ybaT	microarray analysis	Weber et al. (2005)
14	RpoS	ybaS	microarray analysis	Weber et al. (2005)
14	RpoS	ybaY	microarray analysis	Weber et al. (2005)
14	RpoS	yeaC	microarray analysis	Weber et al. (2005)
14	RpoS	ycpJ	microarray analysis	Weber et al. (2005)
14	RpoS	ycpB	microarray analysis	Weber et al. (2005)
14	RpoS	ycpZ	microarray analysis	Weber et al. (2005)
14	RpoS	yeaG	microarray analysis	Weber et al. (2005)
14	RpoS	yeaU	microarray analysis	Weber et al. (2005)
14	RpoS	ypcG	microarray analysis	Weber et al. (2005)
14	RpoS	yhdO	microarray analysis	Weber et al. (2005)
14	RpoS	yngA	microarray analysis	Weber et al. (2005)
14	RpoS	yngB	microarray analysis	Weber et al. (2005)
14	RpoS	ypnA	microarray analysis	Weber et al. (2005)
19	Fis	argQ	microarray analysis	Bradley et al. (2007)
19	Fis	argV	microarray analysis	Bradley et al. (2007)
19	Fis	argZ	microarray analysis	Bradley et al. (2007)
19	Fis	dnrR	microarray analysis	Bradley et al. (2007)
19	Fis	gyyW	microarray analysis	Bradley et al. (2007)
19	Fis	secG	microarray analysis	Bradley et al. (2007)
20	LexA	dinD	microarray analysis, ChIP-chip analysis	Courcelle et al. (2002), Wade et al. (2005)
20	LexA	dinI	microarray analysis, ChIP-chip analysis	Courcelle et al. (2002), Wade et al. (2005)
20	LexA	yafN	microarray analysis (co-upregulation of neighbouring ORFs, along with dinB)	Courcelle et al. (2002)
20	LexA	yafO	microarray analysis (co-upregulation of neighbouring ORFs, along with dinB)	Courcelle et al. (2002)
20	LexA	yebF	microarray analysis (co-upregulation of neighbouring ORFs, along with yebG)	Courcelle et al. (2002)
20	LexA	yebG	in EcoCyc	Karp et al. (2007)
20	LexA	yigN	functional LexA-binding site (electrophoretic gel mobility shift assay), microarray analysis, ChIP-chip analysis	Fernández de Henestrosa et al. (2000), Courcelle et al. (2002), Wade et al. (2005)
20	LexA	yijW	ChIP-chip analysis	Wade et al. (2005)
23	FNR	b1341	ChIP-chip analysis	Grainger et al. (2007)
23	FNR	b1342	ChIP-chip analysis	Grainger et al. (2007)
23	FNR	ydaA	ChIP-chip analysis	Grainger et al. (2007)
24	FliA	b1742	microarray analysis	Zhao et al. (2007)
24	FliA	b1760	microarray analysis	Zhao et al. (2007)
45	FliA	yicZ	microarray-based genetic footprinting, microarray analysis	Girgis et al. (2007), Zhao et al. (2007)
45	FliA	yjdA	microarray-based genetic footprinting, microarray analysis	Girgis et al. (2007), Zhao et al. (2007)
48	GadE	yhdB	In RegulonDBv6.1	Gama-Castro et al. (2008)
48	GadE	yhiU	In RegulonDBv6.1	Gama-Castro et al. (2008)
48	GadE	slp	microarray analysis (induction by YdeO or GadE?)	Masuda & Church (2003)
48	GadE	yhfF	microarray analysis (induction by YdeO or GadE?), macroarray analysis	Masuda & Church (2003), Hommais et al. (2004)
78	LexA	dinP (dinB)	microarray analysis, ChIP-chip analysis	Courcelle et al. (2002), Wade et al. (2005)

### REFERENCES

- Bradley, M. D., M. B. Beach, A. P. de Koning, T. S. Pratt, and R. Osuna. 2007. *Microbiology* **153**, 2922.
- Courcelle, J., A. Khodursky, B. Peter, P. O. Brown, and P. C. Hanawalt. 2001. *Genetics* **158**, 41.
- Faith, J. J., B. Hayete, J. T. Thaden, I. Mogno, J. Wierzbowski, G. Cottarel, S. Kasif, J. J. Collins, and T. S. Gardner. 2007. *PLoS Biol* **5**, e8.
- Fernández De Henestrosa, A. R., T. Ogi, S. Aoyagi, D. Chafin, J. J. Hayes, H. Ohmori, and R. Woodgate. 2000. *Mol Microbiol* **35**(6), 1560.
- Gama-Castro, S., V. Jiménez-Jacinto, M. Peralta-Gil, A. Santos-Zavaleta, M. I. Peñaloza-Spinola, B. Contreras-Moreira, J. Segura-Salazar, L. Muñiz-Rascado, I. Martínez-Flores, H. Salgado, et al., 2008. *Nucleic Acids Res* **36**(Database issue), D120.
- Girgis, H. S., Y. Liu, W. S. Ryu, and S. Tavazoie. 2007. *PLoS Genet* **3**, e154.
- Grainger, D. C., H. Alba, D. Hurd, D. F. Browning, and S. J. Busby. 2007. *Nucleic Acids Res* **35**, 269.
- Hommel, F., E. Krin, J. Y. Copepe, C. Lacoste, E. Yeramian, A. Danchin, and P. Bertin. 2004. *Microbiology* **150**, 61.
- Hung, S. P., P. Balaji, and G. W. Hatfield. 2002. *J Biol Chem* **277**, 40309.
- Karp, P. D., I. M. Keseler, A. Shearer, M. Latendresse, M. Krummenacker, S. M. Paley, I. Paulsen, J. Collado-Vides, S. Gama-Castro, M. Peralta-Gil, et al., 2007. *Nucleic Acids Res* **35**, 7577.
- Landgraf, J. R., J. A. Boxer, and J. M. Calvo. 1999. *J Bacteriol* **181**(20), 6547.
- Masuda, N., and G. M. Church. 2003. *Mol Microbiol* **48**(3), 699.
- Wade, J. T., N. B. Repass, G. M. Church, and K. Struhl. 2005. *Genes Dev* **19**, 2619.
- Weber, H., T. Polen, J. Heuveling, V. F. Wendisch, and R. Hengge. 2005. *J Bacteriol* **187**(5), 1591.
- Zhao, K., M. Liu, and R. R. Burgess. 2007. *Nucleic Acids Res* **35**, 4441.

Table S1: New interactions predicted in the 30% precision LeMoNe network validated by literature search.