

CURRICULUM VITAE

NAME: Rajeev Misra

NATIONALITY United States of America

HOME ADDRESS: 8116 S. Kenwood Lane,
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WORK ADDRESS: School of Life Sciences,
Faculty of Cellular and Molecular Biosciences,
427 East Tyler Mall,
Arizona State University,
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TITLE: Professor

EDUCATION:

B. S. 1977 Christ Church College, Kanpur University, Kanpur, India
M. S. 1981 G. B. Pant University, Pantnagar, India
Ph.D. 1986 Microbiology, Adelaide University, Australia

PROFESSIONAL EXPERIENCE:

Postdoctoral Fellow	8/1986-1988	Molecular Biology, Princeton University
Research Associate	1988-8/1991	Molecular Biology, Princeton University
Assistant Professor	8/1991-1997	Department of Microbiology, Arizona State University
Associate Professor	1997-2001	Department of Microbiology, Arizona State University
Visiting Professor	01/99-04/99	Sabbatical with Professor Hiroshi Nikaido, U. C. Berkeley
Professor	2001-present	School of Life Sciences, Arizona State University

DISTINCT RECOGNITION:

Outstanding Graduate Mentor, Graduate Women's Association, 2000
Centennial Professorship Award Finalist, 2001
Professor of the Year Nominee, 2005 & 2008
Outstanding Graduate Mentor Finalist 2008

INSTITUTIONAL SERVICES:

1. Departmental Seminar Coordinator (Aug 1992-May 1996)

2. Member, MCB Executive Committee (Aug 1992-May 1994)
3. Member, MCB Seminar Committee (Aug 1992-May 1993)
4. **Director**, Microbiology Graduate Program (May 1994-Dec 1996)
5. Member, Curriculum Committee (May 1994-1996)
6. Member, MCB Admission Committee (Aug 1995-1997)
7. Member, Microbiology Chair Appointment Committee (1995)
8. Member, MCB Director Appointment Committee (1996)
9. **Chair**, MCB Graduate Admission Committee (Aug 1996-1997)
10. Member, MCB Executive Committee (Aug 1996-1998)
11. Member, Department's Budget & Personal Committee, (Aug 1997-May 2000)
12. Member, Quality of Instruction Committee, CLAS (1999-2001)
13. **Senator**, University & College Academic Assembly (1999-2002)
14. **President**, American Society for Microbiology, Arizona & Nevada branch (2000-01)
15. Member, Virology Search Committee (1999-2000)
16. **Chair**, Department Septennial Review Committee (2000-2001)
17. **Director**, Microbiology Graduate Program (July 2000-2003)
18. Member, School of Life Sciences Graduate Program Re-organization Committee (2003)
19. Member, Evolution & Systems Biology Search Committee (2003-2004)
20. Member, Research & Training Initiatives Committee (2003-present)
21. Member, Cellular and Molecular Bioscience Faculty Personnel Committee (2004-2009)
22. Member, *Mycobacterium tuberculosis* Faculty Search Committee
23. Member, Bacterial Pathogenesis Faculty Search Committee
24. **Associate Director**, School of Life Sciences Graduate Programs (2006-2008)
25. Member, School of Life Science Academic Program Review Committee
26. Member, Quality of Instructions Committee, College of Liberal Arts and Sciences, (2009-2012)
27. Member, *Immunology* and *Virology* Faculty Search Committee
28. Member, Microbiology Graduate Program Steering Committee (2008-present)
29. **President**, American Society for Microbiology, Arizona & Southern Nevada (2012-13)
30. Member, Cellular & Molecular Bioscience Faculty Personnel Committee (2012-present)
31. Member, Standing Committee, Office of Knowledge Enterprise Development, ASU
32. Member, School of Life Sciences Undergraduate Committee (2013-present)
33. Member, *Microbiome* Faculty search committee (2014-15)

NATIONAL LEVEL SERVICES:

1. **Chartered Member**, NIH Study Section (Prokaryote Cellular and Molecular Biology; 2005-2009); Member, Special Emphasis Panel (NIH) – Topics in Microbiology, Bacterial Pathogenesis (2009-2011); Member, Bacterial Pathogenesis Panel (IDM-A 80S) (2011-present); Ad Hoc Member, NIGMS study section MBC II, 2002, 2003, 2004
2. Member, Microbial Genetics Panel, NSF, 2001
3. Member, NSF Graduate Research Fellowship Program Panel (2013-present)
4. **Academic Editor**, PLoS ONE (2012-present)
5. Editorial Board Member, Journal of Bacteriology (2000-2015)
6. Member, Molecular Microbiology Editorial Advisory Board (2012-present)
7. Editorial Board Member, Frontiers in Microbiology and Microbial Physiology (Since 2011)

8. Ad Hoc reviewer: Molecular Microbiology, Nature, Journal of Biological Chemistry, Biochemistry, Journal of Molecular Biology, Microbiology, EMBO Journal, Applied and Environmental Microbiology, Antimicrobial Agents and Chemotherapy, Biochim Biophys Acta, Genetics, PNAS (USA).

BOOK REVIEW:

Genetics section, Microbiology: Principles and Applications (1994, ed. J. Black)
The Physiology & Biochemistry of Prokaryotes (David White; Oxford Press, 2009)

MEMBERSHIP:

American Society for Microbiology (1986-present)

GRANT SUPPORT:

External Grants

1. National Institutes of Health (R21-AI117150-01): Detailed mapping of drug binding and translocation sites in the AcrB pump protein. (Pending).
2. National Institutes of Health (R21-AI113579-01): A Novel Response to Bacterial Envelope Stress (Pending).
3. National Institutes of Health (RO1-GM048167): June 01, 2008-May 31, 2013. \$1,300,000. Project Title: Assembly of *E. coli* Outer Membrane Proteins.
4. National Institutes of Health (RO1-GM048167): April 01 2013-March 31, 2017. \$1,500,000. Project Title: Assembly of *E. coli* Outer Membrane Proteins (Renewal Pending).
5. National Institutes of Health (RO1-GM048167-S1): May 01, 2008-August 31, 2008. \$78,644. Project Title: Assembly of *E. coli* Outer Membrane Proteins (Merit supplemental award).
6. National Institutes of Health (RO1-GM066988): August 01, 2003-July 31, 2009. \$912,850. Project Title: Export and Import of Lethal Agents Mediated by TolC.
7. National Institutes of Health (RO1-GM066988): July 2013-June 2017. \$1,400,000. Project Title: Export and Import of Lethal Agents Mediated by TolC (Renewal Pending).
8. National Institutes of Health (RO1-GM048167): May 01, 2003-August 31, 2008. \$965,499. Project Title: Targeting and Assembly of *E. coli* Outer Membrane Proteins.
9. National Institutes of Health (RO1-GM048167): August 1997-July 2002. \$582,243. Project Title: Targeting and Assembly of *E. coli* Outer Membrane Proteins.
10. National Institutes of Health (R-29 GM048167): August 1992-July 1997. \$536,529. Project Title: Targeting and Assembly of *E. coli* Outer Membrane Proteins.
11. National Institute of General Medical Sciences: Jan 1993-Dec 1996. \$74,000. Minority Pre-doctoral Fellowship: characterization of OmpG.
12. Arizona Disease Control Research Commission: July 1992-June 1995. \$70,542. Project Title: Novel Antibiotic Targets Among Bacterial Pathogens & the Role of the Outer Membrane in Antibiotic Resistance.

Internal Grants

1. FIFEDOMP (SoLS-RTI): January 2013. \$10,308. To develop multi-PI proposals.
2. Institutional Biomedical Research Support Grant. 1991-1992. \$5000. Project Title: Molecular Characterization of a New Pore Forming Outer Membrane Protein of *E. coli*.
3. Quality of Undergraduate Instructions. 2002-2003. \$12,000. Upgrading the Techniques in Molecular Biology course.

INVITED SEMINARS:

1. Department of Microbiology, University of Illinois, Urbana-Champaign, IL, Oct. 1995
2. Department of Microbiology, Sydney University, Sydney, Australia, July 1996
3. Department of Microbiology & Immunology, Monash University, Australia, August 1996
4. Department of Microbiology & Immunology, Adelaide University, Australia, July 1996
5. Institute Pasteur de Lille, Lille, France, April 1997
6. Department of Molecular & Cell Biology, UC Berkeley, Berkeley, February 1999
7. Department of Molecular Cell Biology, Utrecht, the Netherlands, June 1999
8. Department of Biotechnology, University of Wurzburg, Wurzburg, Germany, July 1999
9. Department of Microbiology, University of Tubingen, Tubingen, Germany, July 1999
10. Department of Biology, University of Konstanz, Konstanz, Germany, July 1999
11. Department of Structural Biology, University of Basel, Basel, Switzerland, July 1999
12. Department de Biochimie, Centre Medical Universitaire, Geneva, Switzerland, July 1999
13. Department of Microbiology, University of Arizona, Tucson, March 2001
14. Department of Molecular Biosciences, Adelaide University, South Australia, August 2002
15. Department of Microbiology, University of Illinois, Urbana-Champaign, IL, Oct. 2002
16. Department of Biology, Georgia State University, Atlanta, GA, Oct. 2003
17. Department of Microbiology, University of Maryland, College Park, MD, Sept. 2006
18. Georgia State University, Ingraham Symposium, Atlanta, GA, Sept. 2006
19. Department of Biology and Biochemistry, University of Houston, TX, Oct. 2006
20. Department of Microbiology and Cell Science, University of Florida, FL, Nov 2006
21. University of Alberta, Canada, May 2008 (Conference talk)
22. Jacobs University, Bremen, Germany, July 2010
23. Wind River Conference in Prokaryotic Biology, Estes Park, Colorado, June 2011
24. Genetic Approaches to Understanding Complex Biological Problems, Sedona, March 2013
25. Center for Membrane Proteins in Infectious Diseases, Arizona State University, Jan 2014
26. Department of Chemistry and Biochemistry, University of Oklahoma, Norman, OK, April 25, 2014
27. Karcher/Barton Seminar, Department of Chemistry and Biochemistry, University of Oklahoma, Norman, OK, April 26, 2014
28. Wind River Conference in Prokaryotic Biology, Estes Park, Colorado, June 2014
29. Department of Chemistry, University of Lexington, KY, September 2014
30. Department of Microbiology, University of Illinois, Urbana-Champaign, October 2014

GRADUATE, POSTDOCTORAL, & HONORS STUDENT TRAINING:

<u>Name</u>	<u>Program</u>	<u>Degree</u>	<u>Year completed</u>
1. Andrew Kloser	Microbiology	Ph.D.	Dec 1995
2. Mike Laird	Microbiology	Ph.D.	Dec 1996
3. Daniel Fajardo	Microbiology	Ph.D.	Aug 1997
4. Ming Deng	Mol Cell Biol	Ph.D.	Dec 1997
5. Joyce Cheung	Mol Cell Biol	Ph.D.	Aug 1999
6. Hema Vakharia	Microbiology	Ph.D.	Aug 1999
7. Greg German	Microbiology	Ph.D.	Dec 2003
8. Maria CastilloKeller	Mol Cell Biol	Ph.D.	May 2004
9. John Werner	Mol Cell Biol	Ph.D.	Dec 2005
10. Fasahath Husain	Microbiology	Ph.D.	July 2006
11. Henri Gerken	Microbiology	Ph.D.	Dec 2009
12. Owen Leiser	Microbiology	Ph.D.	Dec 2010
13. Jon Weeks	Microbiology	Ph.D.	June 2012
14. Keith Morrison	Geomicrobiology	Ph.D.	June 2015
15. Yun Miao	Microbiology	M.S.	Dec 1993
16. Xiaoling Xiong	Microbiology	M.S.	Dec 1995
17. Jack Deeter	Microbiology	M.S.	Dec 1995
18. John Jai	Microbiology	M.S.	Aug 1996
19. Mike Traurig	Microbiology	M.S.	Dec 1996
20. Swati Acharya	Microbiology	M.S.	Dec 1999
21. Saroj Chirravuri	Microbiology	M.N.S.	Dec 2003
22. Teresa Celaya Kolb	Mol Cell Biol	M.S.	June 2004
23. Henri Gerken	Microbiology	M.S.	Aug 2004
24. Mellecha Blake	Microbiology	M.S.	Current
25. Muriel Masi	Microbiology	Postdoc	Dec 2008
26. Christoph Trautner	Microbiology	Postdoc	May 2012
27. Jared Reading	Microbiology	B.S. (Honors)	Dec 1999
28. Trevor Starr	Mol. Bio. Biotech.	B.S. (Honors)	July 2001
29. Anne Marie Augustus	Biochemistry	B.S. (Honors)	July 2001
30. James DeGiulio	Microbiology	B.S. (Honors)	July 2002
31. Daniel Buffington	Microbiology	B.S. (Honors)	May 2004
32. Eric Coon	Microbiology	B.S. (Honors)	May2006
33. Emily Charlson	Biology	B.S. (Honors)	May 2007

Additionally, I have co-chaired Ph.D. committees of two MIC students and have been a member of the Graduate committees of over 40 students from MIC, PLB and MCB graduate programs.

UNDERGRADUATE/GRADUATE STUDENT TRAINING (minimum one year stay):

1. Sung Hong	B.S. (Microbiology)
2. Micah Williams	MNS (Microbiology)
3. Rhesa Stidham	B.S. (Microbiology)
4. Tom McDermott	Ph.D. (Microbiology; did not complete; joined law program)

5. Clint Abner	Ph.D. (Microbiology; did not complete; moved to Florida)
6. Karen Malone	B.S. (Microbiology)
7. Matt Humbard	B.S. (Microbiology)
8. Mike Leingang	High School student
9. Leyla Deschney	B.S. (Microbiology)
10. Bryce Ricken	B.S. (Microbiology)
11. Valerie Jacobs	B.S. (MBB)
12. Phu Vuong	B.S. (Microbiology)
13. Chelsea Johnson	B.S. (Microbiology)
14. Sara Pecora	B.S. (Microbiology)
15. Danielle O'Neal	B.S. (Microbiology)
16. Robin Treuer	Ph.D. (Microbiology; complete M.S. from another ASU lab)
17. Jeremy Mantei	B.S. (Microbiology)
18. Cindy Castellanos	Research Technician
19. Drew Bennion	B.S. (Biology)
20. Gunnhild Albrecht	B.S. (Microbiology)
21. Neron Thomas	Lab Aide B.A. (Business)
22. Hang Pham	B.S. (Microbiology)
23. Kristina Heide	B.S. (Microbiology)
24. Brad Pfeifle	B.S. (Microbiology)
25. Ketaki Soparkar	B.S. (MBB)
26. Otto Schwake	B.S. (Microbiology)
27. Anna Thompson	Research Technician
28. Rene Tellez Jr.	B.S. (Microbiology)
29. Forrest Noelck	B.S. (Microbiology)
30. Nick Giuliano	B.S. (Microbiology)
31. Esra Ilhan	Ph. D. (Microbiology, lab rotation)
32. Sachin Nair	B.S. (Microbiology)
33. Ryan Stikeleather	B.S. (Microbiology & Biochemistry)
34. Hosnah Maududi	B.S. (Microbiology)
35. Nanhee Lee	B.S. (Microbiology)
36. Maggie Leonard-Rivera	B.S. (Microbiology)
37. Katrina Maxcy	B.S. (Princeton University; summer intern)
38. James Mar	B.S. (Biology)
39. Alex Ledesma	Ph. D. (Microbiology, lab rotation)
40. Cori Leonetti	Ph. D. (Microbiology, lab rotation)
41. Sami Kaldawi	B.S. (Microbiology)
42. Mashal Durrani	B.S. (Microbiology)
43. Tessa Geshell	B.S. (Biology)
44. Daniel Gold	B.S. (Microbiology)
45. Dan Muongpack	B.S. (Microbiology)
46. Eric Linden	B.S. (Microbiology)
47. Tye Cameron	Lab Aide (English major)
48. Minjoo Kim	B.S. (Microbiology & Biochemistry)
49. Krystal Breslow	B.S. (Microbiology)
50. Rebecca Gabriel	B.S. (Biology)

51. Mariana Palomino	B.S. (Microbiology)
52. Hyun Jae Cho	B.S. (MBB)
53. Bianca Varda	B.S. (Microbiology; Honors)
54. Lauren Lynch	B.S. (Biology)
55. Mackenzie Lynch	B.S. (Biology)
56. Aurora Ireland	B.S. (Microbiology & Biochemistry; Honors)
57. Monica Szeto	B.S. (Biological Sciences; Honors)
58. Victor Kalinkin	B.S. (MBB; Honors)
59. Megan Mcfeely	B.S. (Microbiology; Honors)
60. Tyler Becker	B.S. (Biosciences)

RESEARCH PUBLICATIONS:

1. Hackett, J., R. Misra, and P. Reeves. **1983**. The TolC protein of *Escherichia coli* K-12 is synthesized in a precursor form. FEBS Lett. 156:307-310.
2. Misra, R., and P. Reeves. **1985**. Intermediates in the synthesis of TolC protein include an incomplete peptide stalled at a rare Arg codon. Eur. J. Biochem. 152:151-155.
3. Misra, R., and P. Reeves. **1985**. Molecular characterization of the Stc⁻ mutation of *Escherichia coli* K-12. Gene 40:337-342.
4. Misra, R., and P. Reeves. **1987**. Role of *micF* in the *tolC*-mediated regulation of OmpF, a major outer membrane protein of *Escherichia coli* K-12. J. Bacteriol. 169:4722-4730.
5. Misra, R., B. A. Sampson, J. L. Occi, and S. A. Benson. **1987**. Identification of mutants with altered outer membrane permeability. p. 436-442. In P. Actor, L. Danoe-Moore, M. L. Higgins, M. R. J. Salton, and G. A. Schockman (eds), Antibiotic Inhibition of Bacterial Cell Surface Assembly and Function. American Society for Microbiology, Washington, DC.
6. Misra, R., and S. A. Benson. **1988**. Isolation and characterization of OmpC porin mutants with altered pore properties. J. Bacteriol. 170:528-533.
7. Misra, R., and S. A. Benson. **1988**. Genetic identification of the pore domain of the OmpC porin of *Escherichia coli* K-12. J. Bacteriol. 170:3611-3617.
8. Misra, R., and S. A. Benson. **1989**. A novel mutation, *cog*, which results in the production of a new porin protein (OmpG) of *Escherichia coli* K-12. J. Bacteriol. 171:4105-4111.
9. Sampson, B. A., R. Misra and S. A. Benson. **1989**. Identification and characterization of a new gene of *Escherichia coli* K-12 involved in outer membrane permeability. Genetics 122:491-501.
10. Misra, R., A. Peterson, T. Ferenci and T. J. Silhavy. **1991**. A genetic approach for analyzing the pathway of LamB assembly into the outer membrane of *Escherichia coli*. J. Biol. Chem. 266:13592-13597.
11. Singh, B., G. Schmitt, M. Lillis, J. M. Hand and R. Misra. **1991**. Over expression of acetohydroxy acid synthase from *Arabidopsis* as an inducible fusion protein in *Escherichia coli*: production of polyclonal antibodies and immunological characterization of the enzyme. Plant Physiol. 97:657-662.
12. Misra, R., and T. J. Silhavy. **1992**. Protein secretion in bacteria: a chemotherapeutic target? p. 164-176. In J. Sutcliffe and N. H. Georopapadakou (eds), Emerging Targets in Antibacterial and Antifungal Chemotherapy. Chapman and Hall, New York and London.
13. Singh, B., I. Szamosi, J. M. Hand and R. Misra. **1992**. The *Arabidopsis* acetohydroxy acid synthase is insensitive to the feed back inhibitors. Plant Physiol. 99 (3): 812-816.

14. Singh, Bijay, Iwona Szamosi, J. Mark Hand and Rajeev Misra. **1992**. Biochemical characterization of the *Arabidopsis* acetohydroxyacid synthase expressed in *Escherichia coli*. Frontiers and new horizons in amino acid research. p 343-347. K. Takai (ed.). Elsevier Science Publishers B.V.
15. Misra, R. **1993**. OmpF assembly mutants of *Escherichia coli* K-12: isolation, characterization, and suppressor analysis. *J. Bacteriol.* 175:5049-5056.
16. Misra, R. **1993**. A novel *ompC* mutation of *Escherichia coli* K-12 that reduces OmpC and OmpF levels in the outer membrane. *Mol. Microbiol.* 10:1029-1035.
17. Laird, M.W., Kloser, A.W., and R. Misra. **1994**. Assembly of LamB and OmpF in deep rough lipopolysaccharide mutants of *Escherichia coli* K-12. *J. Bacteriol.* 176:2259-2264.
18. Misra, R. and Y. Miao. **1995**. Molecular analysis of *amsA*, a locus identified as the suppressor of OmpF assembly mutants of *Escherichia coli* K-12. *Mol. Microbiol.* 16:779-788.
19. Xiong, X., J.N. Deeter, and R. Misra. **1996**. Assembly-defective OmpC mutants of *Escherichia coli* K-12. *J. Bacteriol.* 178:1213-1215.
20. Vakharia, H., and R. Misra. **1996**. A genetic approach for analyzing surface-exposed regions of the OmpC protein of *Escherichia coli* K-12. *Mol. Microbiol.* 19:881-889.
21. Deng, M., and R. Misra. **1996**. Characterization of AsmA, a protein that influences the assembly of *Escherichia coli* outer membrane proteins. *Mol. Microbiol.* 21:605-612.
22. Kloser, A.W., M.W. Laird, and R. Misra. **1996**. *asmB*, a suppressor locus for assembly defective outer membrane proteins of *E. coli* is allelic to *envA* (*lpxC*). *J. Bacteriol.* 178:5138-5143.
23. Kloser, A.W., M.W. Laird, M. Deng, and R. Misra. **1998**. Modulation in lipid A and phospholipid biosynthesis pathways influence outer membrane protein assembly in *Escherichia coli* K-12. *Mol. Microbiol.* 27:1003-1008.
24. Fajardo, D.F., J. Cheung, C. Ito, E. Sugawara, H. Nikaido, and R. Misra. **1998**. Biochemistry and regulation of a novel *Escherichia coli* K-12 porin, OmpG, which produces unusually large channels. *J. Bacteriol.* 180:4452-4459.
25. Traurig, M., and R. Misra. **1999**. Identification of bacteriophage K20 receptor binding regions of OmpF and lipopolysaccharide in *Escherichia coli* K12. *FEMS Microbiol. Lett.* 181:101-108.
26. O. Cohavy, D. Bruckner, L.K. Gordon, R. Misra. M.E. Eggena, S.R. Targan, and J. Braun. **2000**. Colonic bacteria express an ulcerative colitis pANCA-related protein epitope. *Infect. Imm.* 68:1542-1548.
27. Misra, R., M. CastilloKeller, and M. Deng. **2000**. Overexpression of protease deficient DegP_{S210A} rescues the lethal phenotype of *Escherichia coli* OmpF assembly mutants in a *degP* background. *J. Bacteriol.* 182: 4882-4888.
28. Kloser, A. W., J. Reading, T. McDermott, R. Stidham, and R. Misra. **2001**. Intragenic suppressors of an OmpF assembly mutant and assessment of the roles of various OmpF residues in assembly through informational suppressors. *J. Bacteriol.* 183:264-269.
29. German, G. J., and R. Misra. **2001**. The TolC protein of *Escherichia coli* serves as a receptor for the newly characterized TLS bacteriophage. *J. Mol. Biol.* 301:579-585.
30. Vakharia, H., G. J. German, and R. Misra. **2001**. Isolation and characterization of *Escherichia coli* *tolC* mutants defective in secreting enzymatically active α -hemolysin. *J. Bacteriol.* 183:6908-6916.

31. Landers C. J., O. Cohavy, R. Misra, H. Yang, Y. C. Lin, J. Braun, S. R. Targan. **2002**. Selected loss of tolerance evidenced by Crohn's disease-associated immune responses to auto- and microbial antigens. *Gastroenterology*. 123:689-699.
32. CastilloKeller, M., and R. Misra. **2003**. Protease-deficient DegP suppresses lethal effects of a mutant OmpC protein by its capture. *J. Bacteriol.* 185:148-154.
33. Werner, J., A. M. Augustus, and R. Misra. **2003**. Assembly of TolC, a structurally unique and multifunctional outer membrane protein of *Escherichia coli* K-12. *J. Bacteriol.* 185:6540-6547.
34. Augustus, A. M., T. Celaya, F. Husain, M. Humbard, and R. Misra. **2004**. Antibiotic sensitive TolC mutants and their suppressors. *J. Bacteriol.* 186:1851-1860.
35. Gerken, H., and R. Misra. **2004**. Genetic evidence for functional interactions between TolC and AcrA proteins of a major antibiotic efflux pump of *Escherichia coli*. *Mol. Microbiol.* 54:620-631.
36. Husain, F., M. Humbard, and R. Misra. **2004**. Interaction between the TolC and AcrA proteins of a multidrug efflux system of *Escherichia coli*. *J. Bacteriol.* 186:8533-8536.
37. Werner, J. and R. Misra. **2005**. YaeT (Omp85) affects the assembly of lipid-dependent and lipid-independent outer membrane proteins of *Escherichia coli*. *Mol. Microbiol.* 57:1450-1459.
38. German, G. J., R. Misra, and A. Kropinski. **2006**. The T1-like bacteriophages. p 211-224. *In* The Bacteriophages. R. Calender (ed). Oxford University Press. New York, NY.
39. Castillo-Keller, M., P. Vuong, and R. Misra. **2006**. Novel mechanism of *Escherichia coli* porin regulation. *J. Bacteriol.* 188:576-586.
40. Malinverni, J. C., J. Werner, S. Kim, J. G. Sklar, D. Kahne, R. Misra, and T. J. Silhavy. **2006**. YfiO stabilizes the YaeT complex and is essential for outer membrane protein assembly in *E. coli*. *Mol. Microbiol.* 61:151-164.
41. Charlson, S. E., J. N. Werner, and R. Misra. **2006**. Differential effects of *yfgL* mutation on the biogenesis of *Escherichia coli* outer membrane proteins and lipopolysaccharide. *J. Bacteriol.* 188:7186-7194.
42. Masi, M., P. Vuong, M. Humbard, K. Malone, and R. Misra. **2007**. Initial steps of colicin E1 import across the outer membrane of *Escherichia coli*. *J. Bacteriol.* 189:2667-2676.
43. Perry G. H., N. J. Dominy, K. G. Claw, A. S. Lee, H. Fiegler, R. Redon, J. Werner, F. A Villanea, J. L. Mountain, R. Misra, N. P. Carter, C. Lee and A. C. Stone. **2007**. Diet and the evolution of copy number variation of the human amylase gene. *Nature Genetics* 39:1256-1260.
44. Misra, R. **2007**. First glimpse of the crystal structure of YaeT's POTRA domains. *Chem. Biol.* 2:649-651.
45. Vuong, P., D. Bennion, J. Mantei, D. Frost, and R. Misra. **2008**. Analysis of YfgL and YaeT Interactions through Bioinformatics, Mutagenesis, and Biochemistry. *J. Bacteriol.* 190:1507-1517.
46. Bavro, V.N., Z. Pietras, N. Furnham, L. Pérez-Cano, J. Fernández-Recio, X. Yuan Pei, R. Misra and B. Luisi. **2008**. Channel-opening and assembly in a bacterial drug efflux machine. *Mol. Cell.* 30:114-121.
47. Masi, M., G. Duret, A.H. Delcour, and R. Misra. **2009**. Folding and trimerization of signal sequence-less mature TolC in the cytoplasm of *Escherichia coli*. *Microbiology.* 155:1847-1857.

48. Gerken, H., E.S. Charlson, E.M. Cicirelli, L.J. Kenney, and R. Misra. **2009**. MzrA, a novel modulator of the EnvZ/OmpR two-component regulon. *Mol. Microbiol.* 72:1408-1422.
49. Misra, R., and V.N. Bavro. **2009**. Assembly and transport mechanism of tripartite drug efflux systems. *Biochim. Biophys. Acta* 1794:817-825.
50. Gerken, H., O. Leiser, D. Bennion, and R. Misra. **2010**. Involvement and necessity of the Cpx regulon in the event of aberrant assembly of β -barrel outer membrane proteins. *Mol. Microbiol.* 75:1033-1046.
51. Weeks, J.W., T. Celaya-Kolb, S. Pecora, and R. Misra. **2010**. AcrA suppressor alterations reverse the drug hypersensitivity phenotype of a TolC mutant by inducing TolC aperture opening. *Mol. Microbiol.* 75:1468-1483.
52. Bennion, D., E.S. Charlson, E. Coon, and R. Misra. **2010**. Dissection of β -barrel outer membrane protein assembly pathways through characterizing BamA POTRA 1 mutants of *Escherichia coli*. *Mol. Microbiol.* 77:1153-1171.
53. Gerken, H., and R. Misra. **2010**. MzrA-EnvZ interactions in the periplasm influence the EnvZ-OmpR two-component regulon. *J. Bacteriol.* 192:6271-6278.
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