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Education:

1984-1986: Undergraduate Student, University of Florida

1986-1988: Undergraduate Student, University of Arizona; B.S. in Biochemistry (1988, Cum Laude); Advisor: John W. Little

1988-1995: Graduate Student, University of Oregon; Ph.D. in Chemistry (1995); Advisor: Peter H. von Hippel

Academic Appointments:

1995-2000: Postdoctoral Fellow, University of California, Department of Biology; Advisor: Harry F. Noller

2001-2010: Assistant Professor, University of Alberta, Department of Biochemistry

2010-2011: Professor of Practice, McGill University, Department of Biochemistry

2011-present: Assistant Professor & Academic Advisor, Oklahoma State University, Department of Biochemistry & Molecular Biology

Awards and Honors:

1989-1993: Predoctoral Student of the National Institutes of Health

1999-2000: Postdoctoral Fellow of the American Cancer Society

2002-2007: New Investigator of the Canadian Institutes of Health Research

2002-2007: Research Scholar of the Alberta Heritage Foundation for Medical Research

Research Support:

Selected Publications:

1. Cho, J., Rogers, J., Kearns, M., Leslie, M., Hartson, S.D., & Wilson, K.S.* (2015). E. coli persister cells suppress translation by selectively disassembling and degrading their ribosomes. *Molecular Microbiology* 95, 352-364.
2. Li, W., Atkinson, G. C., Thakor, N. S., Allas, U., Lu, C., Chan, K., Tenson, T., Schulten, K., Wilson, K. S., Haurlyuk, V., & Frank, J.* (2013). Mechanism of tetracycline resistance by ribosomal protection protein Tet(O). *Nature Communications* 4, 1477-1485.
3. Ticu, C., Murataliev, M., Nechifor, R., & Wilson, K. S.* (2011). An interdomain protein joint in elongation factor G regulates antibiotic sensitivity, GTP hydrolysis, and ribosome translocation. *J. Biol. Chem.* 286, 21697-21705.
4. Nguyen, B., Ticu, C., & Wilson, K. S.* (2010). Intramolecular movements in EF-G, trapped at different stages in its GTP hydrolytic cycle, probed by FRET. *J. Mol. Biol.* 397, 1245-1260.
5. Ticu, C., Nechifor, R., Nguyen, B., Desrosiers, M., & Wilson, K. S.* (2009). Conformational changes in switch I of EF-G drive its directional cycling on and off the ribosome. *EMBO J.* 28, 2053-2065.

6. Thakor, N. S., Nechifor, R., Scott, P., Keelan, M., Taylor, D. E.* & Wilson, K. S.* (2008). Chimeras of bacterial translation factors Tet(O) and EF-G. *FEBS Letters* 582, 1386-1390.
7. Nechifor, R., Murataliev, M., & Wilson, K. S.* (2007). Functional interactions between the G' subdomain of bacterial translation factor EF-G and ribosomal protein L7/L12. *J. Biol. Chem.* 282, 36998-37005.
8. Thakor, N., Wilson, K. S., Scott, P., & Taylor, D. E.* (2007). An improved procedure for expression and purification of ribosomal protection protein Tet(O) for high-resolution structural studies. *Protein Expression & Purification.* 55, 388-394.
9. Nechifor, R. & Wilson, K. S.* (2007). Crosslinking of translation factor EF-G to proteins of the bacterial ribosome before and after translocation. *J. Mol. Biol.* 368, 1412-1425.
10. Wilson, K. S.* & Nechifor, R. (2004). Interactions of translation factor EF-G with the bacterial ribosome before and after mRNA translocation. *J. Mol. Biol.* 337, 15-30. [Selected for the cover illustration of the journal issue; selected as a notable paper by the "Faculty of 1000".]