

Kyle Friend
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PROFESSIONAL POSITIONS

Washington and Lee University, Department of Chemistry and Biochemistry
Associate Professor 7/20 – present
Assistant Professor 7/14 – 6/20
Visiting Assistant Professor 7/13 – 6/14

EDUCATION & TRAINING

University of Wisconsin 10/08 – 6/13
Postdoctoral Fellow in Biochemistry

Yale University 10/07 – 9/08
Postdoctoral Associate in Obstetrics and Gynecology

Yale University, Ph.D. in Molecular Biophysics and Biochemistry, 9/01 – 9/07
Doctoral Candidate

National Institutes of Health 8/00 – 8/01
Postbaccalaureate Researcher at N.I.A.I.D.

The Ohio State University, B.S. in Biochemistry 8/96 – 6/00

PROFESSIONAL AFFILIATIONS

American Chemical Society 8/14 – present
The RNA Society 1/02 – present

PUBLICATIONS (Students indicated by *)

Articles

1. Durmaz, Y.T.*, Shatadal, A.*, and **Friend, K.** Geneticin reduces mRNA stability. 2022., *PLoS One*. **17**(7):e0272058. PMID: 35901009.
2. Ayoub, N.A., **Friend, K.**, Clarke, T., Baker, R., Correa-Garhwal, S., Crean, A.*, Dendev, E.*, Foster, D.*, Hoff, L.*, Kelly, S., Patterson, W.*, Hayashi, C., and Opell, B.D. Protein composition and associated material properties of cobweb spiders' gumfoot glue droplets. 2021., *Integr. Comp. Biol.*, icab086. PMID: 34003260.
3. An, E.* and **Friend, K.** mTORC1 enhances early phase ribosome processivity. 2020.

- Front. Mol. Biosci.* **7**: 117. PMID: 32656229.
4. Yoon, D.S., Alfhili, M.A., **Friend, K.**, and Lee, M.H. MPK-1/ERK regulatory network controls the number of sperm by regulating timing of sperm-oocyte switch in *C. elegans* germline. 2017. *Biochem. Biophys. Res. Commun.* **491**(4): 1077-82. PMID: 28782521.
 5. Abebrese, E. L.* , Ali, S.H.* , Andrews, V.M.* , Arnold, Z.R.* , Armstrong, K.A.* , Burns, L.N.* , Crowder, H.R.* , Day Jr., R.T.* , Hsu, D.G.* , Jarrell, K.L.* , Lee, G.M.* , Luo, Y.* , Mugayo, D.A.* , Raza, Z.* , and **Friend, K.** Identification of human short introns. 2017. *PLoS One.* **12**(5):e0175393. PMID: 28520720.
 6. **Friend, K.**, Brooks, H.A.* , Propson, N.E., Thomson, J.A. and Kimble, J. 2015. Embryonic stem cell growth factors regulate eIF2 α phosphorylation. *PLoS One.* **10**(9):e0139076. PMID: 26406898.
 7. **Friend, K.**, Brook, M., Bezirci, F.B.* , Sheets, M.D., Gray, N.K. and Seli, E. 2012. Embryonic poly(A)-binding protein (ePAB) phosphorylation is required for *Xenopus* oocyte maturation. *Biochem J.* **445**(1): 93-100. PMID: 22497250.
 8. Campbell, Z.T., Menichelli, E., **Friend, K.**, Wu, J., Kimble, J., Williamson, J.R. and Wickens, M. 2012. Identification of a conserved interface between PUF and CPEB proteins. *J. Biol. Chem.* **287**(22): 18854-62. PMID: 22496444.
 9. **Friend, K.**, Campbell, Z.T., Cooke, A., Kroll-Conner, P., Wickens, M.P. and Kimble, J. 2012. A conserved PUF—Ago—eEF1A complex attenuates translation elongation. *Nat. Struct. Mol. Biol.* **19**(2): 176-83. PMID: 22231398.
 10. **Friend, K.**, Kolev, N.G., Shu, M.D., and Steitz, J.A. 2008. Minor-class splicing occurs in the nucleus of the *Xenopus* oocyte. *RNA* **14**(8): 1459-1462. PMID: 18567814.
 11. **Friend, K.**, Lovejoy, A.F.* , and Steitz, J.A. 2007. U2 snRNP binds intronless histone pre-mRNAs to facilitate U7-snRNP-dependent 3' end formation. *Mol. Cell* **28**(2): 240-252. PMID: 17964263.
 12. Fok, V., **Friend, K.**, and Steitz, J.A. 2006. Epstein-Barr virus noncoding RNAs are confined to the nucleus, whereas their partner, the human La protein, undergoes nucleocytoplasmic shuttling. *J. Cell. Biol.* **173**(3): 319-325. PMID: 16682524.
 13. Cahill, N., **Friend, K.**, Speckmann, W., Li, Z.H., Terns, R.M., Terns, M.P., Steitz, J.A. 2002. Site-specific cross-linking analyses reveal an asymmetric protein distribution for a box C/D snoRNP. *EMBO J.* **21**(14): 3816-3828. PMID: 12110593.

Book Chapters

1. Kershner, A., Crittenden, S.L., **Friend, K.**, Sorensen, E.B., Porter, D.F., and J. Kimble. 2013. Germline stem cells and their regulation in the nematode *Caenorhabditis elegans*. In *Transcriptional and Translational Regulation of Stem Cells* (eds. G. Hime & H. Abud, Springer).
2. **Friend, K.** and Seli, E. 2009. Molecular biology of the gamete. In *Stem Cells in Human Reproduction*, 2nd ed. (eds. C. Simon and A. Pellicer, Informa Healthcare Press).

CURRENT FUNDING

Co-PI, National Science Foundation RUI, 2018-23.

- For determining the molecular composition of diverse spider web glues and correlating protein composition with mechanical features of the glues.

COMPLETED FUNDING

Co-PI, Associated Colleges of the South, 2020-21.

- For the further development of ChemTutor, an online chemistry and math tutorial system for students transitioning from high school to college.

PI, Associated Colleges of the South, 2019.

- For the creation of ChemTutor, an online chemistry and math tutorial system for students transitioning from high school to college.

PI, Jeffress Memorial Trust, 2017-19.

- For investigating how translation is controlled as mouse embryonic stem cells differentiate using a combination of high-throughput sequencing and cell biological assays.

Postdoctoral Fellowship, American Cancer Society, PF-10-127-01-DDC, 2010-13

- Used a combination of *in vitro* biochemistry and biophysics to characterize a sequence-specific RNA-binding protein. Generated transgenic animals and worked with mammalian cell lines for *in vivo* functional analysis.