

## Jaehyoun Lee, Ph. D

### Education

2016 Ph.D. Department of Chemistry, Pennsylvania State University, University Park, PA  
Dissertation title: Structure and Dynamics of Nucleosome Investigated by Single-molecule Methods  
2010 B.S. Bioengineering and Biotechnology, Yonsei University, Seoul, Republic of Korea

### Publications

1. **J. Lee**, S. Oh, S.M. Abmayr, and J.L. (2020) Workman. When histones are under glucose starvation. *J Biosci.* *45*, pii: 17. doi: 10.1007/s12038-019-9971-6.
2. **J. Lee**, J.B. Crickard, J.C. Reese, and T.-H. Lee. (2019) Single-molecule FRET method to investigate the dynamics of transcription elongation through the nucleosome by RNA polymerase II. *Methods.* *159-160*, 51-58. doi: 10.1016/j.ymeth.2019.01.009.
3. **J. Lee** and T.-H. Lee. (2019) How Protein Binding Sensitizes the Nucleosome to Histone H3K56 Acetylation. *ACS Chem Biol.* *14*, 506-515. doi: 10.1021/acscchembio.9b00018.
4. JB Crickard, **J. Lee**, T.-H. Lee, and J.C. Reese. (2017) The elongation factor Spt4/5 regulates RNA polymerase II transcription through the nucleosome. *Nucleic Acids Res.* *45*, 6362-6374. doi: 10.1093/nar/gkx220.
5. **J. Lee**, T.-H. Lee. (2017) Single-Molecule Investigations on Histone H2A-H2B Dynamics in the Nucleosome. *Biochemistry* *56*, 977-985. doi: 10.1021/acs.biochem.6b01252.
6. J. Kim, S. Wei, **J. Lee**, H. Yue, and T.-H. Lee. (2016) Single Molecule Observation Reveals Spontaneous Protein Dynamics in the Nucleosome. *J. Phys. Chem. B.* *120*, 8925-8931. doi: 10.1021/acs.jpccb.6b06235.
7. S.J. Falk\*, **J. Lee**\*, T.-H. Lee, and B.E. Black. (2016) CENP-C directs the CENP-A nucleosome structural transition primarily through sliding of DNA gyres. *Nat. Struct. Mol. Biol.* *23*, 204-208. doi: 10.1038/nsmb.3175. (\*Co-first author)
8. J. Kim, **J. Lee**, and T.-H. Lee. (2015) Lysine Acetylation Facilitates Spontaneous DNA Dynamics in the Nucleosome. *J. Phys. Chem. B.* *119*, 15001-15005. doi: 10.1021/acs.jpccb.5b09734.
9. J.Y. Lee, **J. Lee**, H. Yue, and T.-H. Lee. (2015) Dynamics of nucleosome assembly and effects of DNA methylation. *J. Biol. Chem.* *290*, 4291-4303. doi: 10.1074/jbc.M114.619213.