

(Journal Articles continued)

11. Burke, K.A., Yate, and Legleiter, J. [Amyloid-forming proteins Alter the Local Mechanical Properties of Lipid Bilayers](#). Biochemistry (2013) 52:808-817.
12. Burke, K.A., Yate, and Legleiter, J. [Biophysical insights into how surfaces, including lipid membranes, modulate protein aggregation related to neurodegeneration](#). Frontiers in Neurology (2013) 4:17.
13. Shamitko-Klingensmith, N., Wambaugh, K. M., Burke, K. A., Magnone, G. J., and Legleiter, J. (2012) [Correlation of atomic force microscopy tapping forces to mechanical properties of lipid membranes](#), ASME Conference Proceedings 2012, DETC2012-70233.
14. Shamitko-Klingensmith, N., Molchanoff, K. M., Burke, K. A., Magnone, G. J., and Legleiter, J. (2012) [Mapping the Mechanical Properties of Cholesterol-Containing Supported Lipid Bilayers with Nanoscale Spatial Resolution](#), Langmuir 28, 13411-13422.
15. Nucifora, L. G., Burke, K. A., Feng, X., Arbez, N., Zhu, S., Miller, J., Yang, G., Ratovitski, T., Delannoy, M., Muchowski, P. J., Finkbeiner, S., Legleiter, J., Ross, C. A., and Poirier, M. A. (2012) [Identification of Novel Potentially Toxic Oligomers Formed in Vitro from Mammalian-derived Expanded huntingtin Exon-1 Protein](#), Journal of Biological Chemistry 287, 16017-16028.
16. Legleiter, J., Burke, K. A., and Yates, E. A. (2012) [Investigation of protein/lipid interactions via scanning probe acceleration microscopy: theory and experiment](#), ASME Conference Proceedings 2012, DETC2012-70228.
17. Yates, E. A., Cucco, E. M., and Legleiter, J. (2011) [Point Mutations in A \$\beta\$ Induce Polymorphic Aggregates at Liquid/Solid Interfaces](#), ACS Chemical Neuroscience 2, 294-307.
18. Pifer, P. M., Yates, E. A., and Legleiter, J. (2011) [Point Mutations in A \$\beta\$ Result in the Formation of Distinct Polymorphic Aggregates in the Presence of Lipid Bilayers](#), PLoS One 6, e16248.
19. Miller, J., Arrasate, M., Brooks, E., Libeu, C. P., Legleiter, J., Hatters, D., Curtis, J., Cheung, K., Krishnan, P., Mitra, S., Widjaja, K., Shaby, B. A., Lotz, G. P., Newhouse, Y., Mitchell, E. J., Osmand, A., Gray, M., Thulasiramin, V., Saudou, F., Segal, M., Yang, X. W., Masliah, E., Thompson, L. M., Muchowski, P. J., Weisgraber, K. H., and Finkbeiner, S. (2011) [Identifying polyglutamine protein species in situ that best predict neurodegeneration](#), Nature Chemical Biology 7, 925-934.
20. Legleiter, J., Fryer, J. D., Holtzman, D. M., and Kowalewski, T. (2011) [The Modulating Effect of Mechanical Changes in Lipid Bilayers Caused by ApoE-Containing Lipoproteins on A \$\beta\$ Induced Membrane Disruption](#), ACS Chemical Neuroscience 2, 588-599.
21. Burke, K. A., Godbey, J., and Legleiter, J. (2011) [Assessing mutant huntingtin fragment and polyglutamine aggregation by atomic force microscopy](#), Methods 53, 275-284.
22. Sathasivam, K., Lane, A., Legleiter, J., Warley, A., Woodman, B., Finkbeiner, S., Paganetti, P., Muchowski, P. J., Wilson, S., and Bates, G. P. (2010) [Identical oligomeric and fibrillar structures captured](#)

- [from the brains of R6/2 and knock-in mouse models of Huntington's disease](#), Human Molecular Genetics 19, 65-78.
23. Lotz, G. P., Legleiter, J., Aron, R., Mitchell, E. J., Huang, S.-Y., Ng, C., Glabe, C., Thompson, L. M., and Muchowski, P. J. (2010) [Hsp70 and Hsp40 Functionally Interact with Soluble Mutant Huntingtin Oligomers in a Classic ATP-dependent Reaction Cycle](#), Journal of Biological Chemistry 285, 38183-38193.
24. Legleiter, J., Mitchell, E., Lotz, G. P., Sapp, E., Ng, C., DiFiglia, M., Thompson, L. M., and Muchowski, P. J. (2010) [Mutant Huntingtin Fragments Form Oligomers in a Polyglutamine Length-dependent Manner in Vitro and in Vivo](#), Journal of Biological Chemistry 285, 14777-14790.
25. Kumar, B., Pifer, P. M., Giovengo, A., and Legleiter, J. (2010) [The effect of set point ratio and surface Young's modulus on maximum tapping forces in fluid tapping mode atomic force microscopy](#), Journal of Applied Physics 107, 044508.
26. Abraham, A., Mihaliuk, E., Kumar, B., Legleiter, J., and Gullion, T. (2010) [Solid-State NMR Study of Cysteine on Gold Nanoparticles](#), Journal of Physical Chemistry C 114, 18109-18114.
27. Legleiter, J., Lotz, G. P., Miller, J., Ko, J., Ng, C., Williams, G. L., Finkbeiner, S., Patterson, P. H., and Muchowski, P. J. (2009) [Monoclonal Antibodies Recognize Distinct Conformational Epitopes Formed by Polyglutamine in a Mutant Huntingtin Fragment](#), Journal of Biological Chemistry 284, 21647-21658.
28. Legleiter, J. (2009) [The effect of drive frequency and set point amplitude on tapping forces in atomic force microscopy: simulation and experiment](#), Nanotechnology 20, 245703.
29. Cheng, J. S., Dubal, D. B., Kim, D. H., Legleiter, J., Cheng, I. H., Yu, G.-Q., Tesseur, I., Wyss-Coray, T., Bonaldo, P., and Mucke, L. (2009) [Collagen VI protects neurons against A \$\beta\$ toxicity](#), Nature Neuroscience 12, 119-121.
30. Cheng, I. H., Scearce-Levie, K., Legleiter, J., Palop, J. J., Gerstein, H., Bien-Ly, N., Puolivali, J., Lesne, S., Ashe, K. H., Muchowski, P. J., and Mucke, L. (2007) [Accelerating amyloid- \$\beta\$ fibrillization reduces oligomer levels and functional deficits in Alzheimer disease mouse models](#), Journal of Biological Chemistry 282, 23818-23828.
31. Legleiter, J., Park, M., Cusick, B., and Kowalewski, T. (2006) [Scanning probe acceleration microscopy \(SPAM\) in fluids: Mapping mechanical properties of surfaces at the nanoscale](#), Proceedings of the National Academy of Sciences of the United States of America 103, 4813-4818.
32. Kowalewski, T., and Legleiter, J. (2006) [Imaging stability and average tip-sample force in tapping mode atomic force microscopy](#), Journal of Applied Physics 99,
33. Ehrnhoefer, D. E., Duennwald, M., Markovic, P., Wacker, J. L., Engemann, S., Roark, M., Legleiter, J., Marsh, J. L., Thompson, L. M., Lindquist, S., Muchowski, P. J., and Wanker, E. E. (2006) [Green tea \(-\)-epigallocatechin-gallate modulates early events in huntingtin misfolding and reduces toxicity in Huntington's disease models](#), Human Molecular Genetics 15, 2743-2751.

34. Legleiter, J., and Kowalewski, T. (2005) [Insights into fluid tapping-mode atomic force microscopy provided by numerical simulations](#), Applied Physics Letters 87, 163120-163123.
35. Wahrle, S. E., Jiang, H., Parsadanian, M., Legleiter, J., Han, X. L., Fryer, J. D., Kowalewski, T., and Holtzman, D. M. (2004) [ABCA1 is required for normal central nervous system ApoE levels and for lipidation of astrocyte-secreted apoE](#), Journal of Biological Chemistry 279, 40987-40993.
36. Legleiter, J., and Kowalewski, T. (2004) [Tapping, pulling, probing: atomic force microscopy in drug discovery](#), Drug Discovery Today: Technologies 1, 163-169.
37. Legleiter, J., DeMattos, R. B., Holtzman, D. M., and Kowalewski, T. (2004) [In situAFM studies of astrocyte-secreted apolipoprotein E- and J-containing lipoproteins](#), Journal of Colloid and Interface Science 278, 96-106.
38. Legleiter, J., Czilli, D. L., Gitter, B., DeMattos, R. B., Holtzman, D. M., and Kowalewski, T. (2004) [Effect of different anti-A \$\beta\$ antibodies on A \$\beta\$ fibrillogenesis as assessed by atomic force microscopy](#), Journal of Molecular Biology 335, 997-1006.
39. Kowalewski, T., and Legleiter, J. (2003) [Improvement of Tapping Mode AFM Imaging Stability by Operation Far Below Resonance Frequency of a Cantilever](#), ASME Conference Proceedings 2003, 595-597.
40. Tristram-Nagle, S., Liu, Y. F., Legleiter, J., and Nagle, J. F. (2002) [Structure of gel phase DMPC determined by X-ray diffraction](#), Biophysical Journal 83, 3324-3335.

Book Chapters

41. Chaibva, M., Shamitko-Klingensmith, N., and Legleiter, J. "Recovering Time-Resolved Imaging Forces in solution by Scanning Probe Acceleration Microscopy: Theory and Application." In Surface Science Characterization Techniques for Nanomaterials. Kumar, C., Ed. (2015) 69-89.
42. Burke, K.A. and Legleiter, J. [Atomic force microscopy assays for evaluating polyglutamine aggregation in solution and on surfaces](#). Methods in Molecular Biology (2013) 1017:21-40.
43. Legleiter, J. (2011) [Assessing A \$\beta\$ Aggregation State by Atomic Force Microscopy](#), In Alzheimer's Disease and Frontotemporal Dementia: Methods and Protocols (Roberson, E. D., Ed.), pp 57-70.
44. Legleiter, J. and T., K. (2006) [Atomic Force Microscopy](#), In Part A: Protein Misfolding, Aggregation and Conformational Diseases (Uversky, V. N., and Fink, A. L., Eds.), pp 315-334, Kluwer Academic / Plenum Publishers, New York.
45. Legleiter, J. and Kowalewski, T. (2004) [Atomic force microscopy of \$\beta\$ -amyloid: static and dynamic studies of nanostructure and its formation](#), Methods in molecular biology (Clifton, N.J.) 242, 349-364.