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A. Appointments

- 2015-present Director of Graduate Studies, [The C. Eugene Bennett Department of Chemistry](#), West Virginia University, Morgantown, WV
- 2014-present Associate Professor, [The C. Eugene Bennett Department of Chemistry](#), West Virginia University, Morgantown, WV
- 2009-present Investigator, [Blanchette Rockefeller Neurosciences Institute](#) (Formerly Center for Neuroscience), Robert C. Byrd Health Sciences Center, West Virginia University, Morgantown, WV
- 2009-present Faculty Researcher, [nanoSAFE initiative](#) (Formerly WVnano initiative), West Virginia University, Morgantown, WV
- 2008-2014 Assistant Professor, [The C. Eugene Bennett Department of Chemistry](#), West Virginia University, Morgantown, WV
- 2005-2008 Postdoctoral Fellow, [The Gladstone Institute of Neurological Disease](#), The J. David Gladstone Institutes, University of California, San Francisco

B. Education

- 2005 Ph.D. in Chemistry, [Carnegie Mellon University](#), Pittsburgh, PA
Dissertation title: Atomic force microscopy studies of physicochemical aspects of Alzheimer's disease
Research advisor: Dr. Tomasz Kowalewski
- 2000 B.S. (ACS certified) in Chemistry, [Murray State University](#), Murray, KY
Research advisor: Dr. Harry Fannin

C. Publications

Hyperlinks to online versions provided in publication title (subscription may be required).

1. Chaibva M., Gao X., Jain P., Campbell IV W.A., Frey S.L., and Legleiter J. [Sphingomyelin and GM1 Influence Huntingtin Binding to, Disruption of, and Aggregation on Lipid Membranes](#). ACS Omega (2018) 3:273-285.
2. Kumar B., Miller K., Charon N.W., and Legleiter J. [Periplasmic flagella in Borrelia burgdorferi function to maintain cellular integrity upon external stress](#). PLoS ONE (2017) 12:e0184648.
3. Adegbuyiro A., Sedighi F., Pilkington A.W. IV, Groover S., and Legleiter J. [Proteins containing expanded polyglutamine tracts and neurodegenerative disease](#). Biochemistry (2017) 56:1199-1217.

4. Chaibva M., Jawahery S., Pilkington IV A.W., Arndt J.R., Sarver O., Valentine S., Matysiak S., and Legleiter J. [Acetylation within the First 17 Residues of Huntingtin Exon 1 Alters Aggregation and Lipid Binding](#). *Biophysical Journal* (2016) 111:349-362.
5. Shamitko-Klingensmith N., Boyd, J.W., and Legleiter J. [Microtubule modification influences cellular response to amyloid- \$\beta\$ exposure](#). *AIMS Biophysics* (2016) 3: 261-285.
6. Gao X., Campbell IV W.A., Chaibva M., Jain P., Frey S.L., and Legleiter J. [Cholesterol modifies huntingtin binding to, disruption of, and aggregation on lipid membranes](#). *Biochemistry* (2016) 55:92-102.
7. Berger T.R., Montie H.L., Jain P., Legleiter J., Merry D.E. [Identification of novel polyglutamine-expanded aggregation species in spinal and bulbar muscular atrophy](#). *Brain Research* (2015) 1628, Part B:254-264
8. Arndt, J.R., Kondalaji, S.G., Maurer, M.M., Parker, A., Legleiter, J., and Valentine, S.J. [Huntingtin N-terminal monomeric and multimeric structures destabilized by covalent modification of heteroatomic residues](#). *Biochemistry* (2015) 54:4285-4296.
9. Arndt J.R., Chaibva M., and Legleiter J. [The emerging role of the first 17 amino acids of huntingtin in Huntington's disease](#). *Biomolecular Concepts* (2015) 6:33-46.
10. Arndt J.R., Brown R.J., Burke K.A., Legleiter J., and Valentine S.J. [Lysine Residues in the N-Terminal Huntingtin Amphipathic \$\alpha\$ -Helix Play a Key Role in Peptide Aggregation](#). *Journal of Mass Spectrometry* (2015) 50:117–126.
11. Shakitko-Klingensmith N. and Legleiter J. [Investigation of temperature induced mechanical changes in supported bilayers by variants of tapping mode atomic force microscopy](#). *Scanning* (2015) 37:23–35.
12. 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](#)". C. Kumar editor. Springer. (2015) 69-89.
13. Yates E.A. and Legleiter, J. [Preparation protocols of A \$\beta\$ \(1-40\) promote the formation of polymorphic aggregates and altered interactions with lipid bilayers](#). *Biochemistry* (2014) 53:7038-7050.
14. Chaibva M., Burke K.A., and Legleiter J. [Curvature Enhances Binding and Aggregation of Huntingtin at Lipid Membranes](#). *Biochemistry* (2014) 53:2355-2365.
15. Burke K.A., Hensal K.M., Umbaugh C.S., Chaibva M., and Legleiter J. [Huntingtin disrupts lipid bilayers in a polyQ-length dependent manner](#). *Biochimica et Biophysica Acta (BBA) – Biomembranes* (2013) 1828:1953-1961.
16. Burke K.A., Kauffman K.J., Umbaugh C.S., Frey S.L., and Legleiter J. [The Interaction of Polyglutamine Peptides With Lipid Membranes is Regulated by Flanking Sequences Associated with Huntingtin](#). *Journal of Biological Chemistry* (2013) 288:14993-15005.
17. Yates E.A., Owens S.L., Lynch M.F., Cucco E.M., Umbaugh C.S., and Legleiter J. [Specific domains of A \$\beta\$ facilitate aggregation on and association with lipid bilayers](#). *Journal of Molecular Biology* (2013) 425:1915-1933.
18. Lotz G.P. and Legleiter J. [The role of amyloidogenic protein oligomerization in neurodegenerative disease](#). *Journal of Molecular Medicine* (2013) 91:653-664.
19. Burke K.A., Yates E.A., and Legleiter J. [Amyloid-forming Proteins Alter the Local Mechanical Properties of Lipid Bilayers](#). *Biochemistry* (2013) 52:808-817.

20. Burke K.A., Yates E.A., and Legleiter J. [Biophysical insights into how surfaces, including lipid membranes, modulate protein aggregation related to neurodegeneration](#). *Frontiers in Neurology* (2013) 4:17.
21. 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.
22. Shamitko-Klingensmith N., Wambaugh K. M., Burke K. A., Magnone G. J., and Legleiter J. [Correlation of atomic force microscopy tapping forces to mechanical properties of lipid membranes](#). *ASME Proceedings* (2012), DETC2012-70233.
23. Shamitko-Klingensmith N., Molchanoff K. M., Burke K. A., Magnone G. J., and Legleiter J. [Mapping the Mechanical Properties of Cholesterol-Containing Supported Lipid Bilayers with Nanoscale Spatial Resolution](#). *Langmuir* (2012) 28:13411-13422.
24. 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. [Identification of Novel Potentially Toxic Oligomers Formed in Vitro from Mammalian-derived Expanded huntingtin Exon-1 Protein](#). *Journal of Biological Chemistry* (2012) 287:16017-16028.
25. Legleiter J., Burke K. A., and Yates E. A. [Investigation of protein/lipid interactions via scanning probe acceleration microscopy: theory and experiment](#). *ASME Proceedings* (2012), DETC2012-70228.
26. Legleiter J., Fryer J. D., Holtzman D. M., and Kowalewski T. [The Modulating Effect of Mechanical Changes in Lipid Bilayers Caused by ApoE-Containing Lipoproteins on A \$\beta\$ Induced Membrane Disruption](#). *ACS Chemical Neuroscience* (2011) 2:588-599.
27. Pifer P. M., Yates E. A., and Legleiter J. [Point Mutations in A \$\beta\$ Result in the Formation of Distinct Polymorphic Aggregates in the Presence of Lipid Bilayers](#). *PLoS ONE* (2011) 6:e16248.
28. Yates E. A., Cucco E. M., and Legleiter J. [Point Mutations in A \$\beta\$ Induce Polymorphic Aggregates at Liquid/Solid Interfaces](#). *ACS Chemical Neuroscience* (2011) 2:294-307.
29. Burke K. A., Godbey J., and Legleiter J. [Assessing mutant huntingtin fragment and polyglutamine aggregation by atomic force microscopy](#). *Methods* (2011) 53:275-284.
30. 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. [Identifying polyglutamine protein species in situ that best predict neurodegeneration](#). *Nature Chemical Biology* (2011) 7:925-934.
31. Kumar B., Pifer P.M., Giovengo A., and Legleiter J. [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* (2010) 107:044508.
32. Sathasivam K., Lane A., Legleiter J., Warley A., Woodman B., Finkbeiner S., Paganetti P., Muchowski P.J., Wilson S., and Bates G.P. [Identical oligomeric and fibrillar structures captured from the brains of R6/2 and knock-in mouse models of Huntington's disease](#). *Human Molecular Genetics* (2010) 19:65-78.
33. Legleiter J. [Assessing A \$\beta\$ aggregation state by atomic force microscopy](#). *Methods in Molecular Biology* (2010) 670:57-70.
34. Legleiter J., Mitchell E., Lotz G.P., Sapp E., Ng C., DiFiglia M., Thompson L.M., and Muchowski P.J. [Mutant Huntingtin fragments form oligomers in a polyglutamine length-dependent manner in vitro and in vivo](#). *Journal of Biological Chemistry* (2010) 285:14777-14790.

35. Lotz G.P., Legleiter J., Aron R., Mitchell E.J., Huang S.-Y., Ng C., Glabe C., Thompson L.M., and Muchowski P.J. [Hsp70 and Hsp40 functionally interact with soluble mutant huntingtin oligomers in a classic ATP-dependent reaction cycle.](#) Journal of Biological Chemistry (2010) 285:38183-38193.
36. Abraham A., Mihaliuk E., Kumar B., Legleiter J., and Gullion T. [Solid-State NMR study of Cysteine on Gold Nanoparticles.](#) Journal of Physical Chemistry C (2010) 114:18109-18114.
37. Legleiter J. [The effect of drive frequency and set point amplitude on tapping forces in atomic force microscopy: simulation and experiment.](#) Nanotechnology (2009) 20:245703.
38. 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. [Collagen VI protects neurons against amyloid- \$\beta\$ toxicity.](#) Nature Neuroscience (2009) 12:119-121.
39. Legleiter J., Lotz G.P., Miller J., Ko J., Ng C., Williams G. L., Finkbeiner S., Patterson P. H., and Muchowski P.J. [Monoclonal antibodies recognize distinct conformational epitopes formed by polyglutamine in a mutant huntingtin fragment.](#) Journal of Biological Chemistry (2009) 284:21647–21658.
40. Cheng I. H., Searce-Levie K., Legleiter J., Palop J. J., Gerstein H., Bien-Ly N., Puoliväli J., Lesné S., Ashe K. H., Muchowski P.J., and Mucke L. [Enhancing the Fibrillization and Deposition of the Amyloid- \$\beta\$ Peptide Reduces Its Negative Impact on Behavior and Synaptic Activity-Dependent Proteins.](#) Journal of Biological Chemistry (2007) 282:23818-23828.
41. 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. [Green tea \(-\)-epigallocatechin-gallate modulates early events in huntingtin misfolding and reduces toxicity in Huntington's disease models.](#) Human Molecular Genetics (2006) 15:2743-2751.
42. Kowalewski T and Legleiter J. [Imaging stability and average tip-sample force in tapping mode atomic force microscopy.](#) Journal of Applied Physics (2006) 99:064903.
43. Legleiter J., Park M., Cusick B., and Kowalewski T. [Scanning probe acceleration microscopy \(SPAM\) in fluids: mapping mechanical properties of surfaces at the nanoscale.](#) Proceedings of the National Academy of Science USA (2006) 103:4813-4818.
44. Legleiter J. and Kowalewski T. [Atomic Force Microscopy](#) in Part A: Protein Misfolding, Aggregation and Conformational Diseases. V. N. Uversky and A. L. Fink. Kluwer Academic / Plenum Publishers, New York. (2006) 4:315-334.
45. Legleiter J. and Kowalewski T. [Insights into fluid tapping-mode atomic force microscopy provided by numerical simulations.](#) Applied Physics Letters (2005) 87:163120-3.
46. Legleiter J., Czilli D., Demattos R., Gitter B., Holtzman D., and Kowalewski T. [Effect of different anti-A \$\beta\$ antibodies on A \$\beta\$ fibrillogenesis as assessed by atomic force microscopy.](#) Journal of Molecular Biology (2004) 335:997-1006.
47. Legleiter J., Demattos R., Holtzman D., and Kowalewski T. [In situ AFM studies of astrocyte-secreted apolipoprotein E and J-containing lipoproteins.](#) Journal of Colloid and Interface Science (2004) 278:96-106.
48. Wahrle S.E., Jiang H., Parsadanian M., Legleiter J., Han X., Fryer J. D., Kowalewski T., and Holtzman D. M. [ABCA1 is required for normal CNS apoE levels and for lipidation of astrocyte-secreted apoE.](#) Journal of Biological Chemistry (2004) 279:40987-40993.
49. Legleiter J. and Kowalewski T. [Tapping, pulling, poking: the atomic force microscope in drug discovery.](#) Drug Discovery Today: Technologies. (2004) 1:163-169.
50. Legleiter J. and Kowalewski T. [Improvement of tapping mode AFM imaging stability by operation far below resonance frequency of a cantilever.](#) ASME Proceedings. (2003). IMECE2003-55551.

51. Legleiter J. and Kowalewski T. [Atomic force microscopy of \$\beta\$ -amyloid: static and dynamic studies of nanostructure and its formation](#). Methods in Molecular Biology (2004) 242:349-364.
52. Tristam-Nagle S., Lui Y., Legleiter J., and Nagle J. [Structure of gel phase DMPC determined by X-ray diffraction](#). Biophysical Journal (2002) 83:3324-3335.

Manuscripts Under Review:

1. Arndt J.R., Chaibva M., Kondalaji S.G., Khakinejad M., Sarver O., Legleiter J., and Valentine S.J. Nucleation inhibition of Huntingtin protein (htt) by polyproline PPII helices: a potential interaction with the N-terminal α -helical region of htt (In Review).

D. Grants

1. Factors modulating the interaction of huntingtin with lipid membranes: Implications for Huntington's Disease (R15-NS090380-01)
 Status: Current
 Years: 2015-2018
 Grantor: National Institutes of Health
 PI: Justin Legleiter
 Total: \$443,803
2. The ability of small molecules to inhibit protein aggregation at lipid surfaces
 Status: Completed
 Years: 2016-2017
 Grantor: WVU PSCoR
 PI: Justin Legleiter
 Total: \$23,505
3. Nanotopographical Memory Modulates Stem Cell Fate (#1511759)
 Status: Current
 Years: 2015-2018
 Grantor: National Science Foundation
 PI: Yong Yang
 My Role: Co-PI
 Total: \$350,282
4. CAREER: The Role of Mechanical Properties in Amyloid Binding to Cellular Surfaces (#1054211)
 Status: Completed
 Years: 2011-2016
 Grantor: National Science Foundation
 PI: Justin Legleiter
 Total: \$400,000
5. Education in Nanotoxicology at West Virginia University (IGERT)
 Status: Completed
 Years: 2012-2017
 Grantor: National Science Foundation
 PI: Deandre Leslie-Pelecky
 My Role: Investigator
 Total: \$3,000,000 (\$145,000 are funds for which I was responsible)

6. Mechanisms and consequences of A β binding to cellular surfaces (NIRG-11-2038)

Status: Completed
Years: 2011-2013
Grantor: The Alzheimer's Association
PI: Justin Legleiter
Total: \$99,952

7. Bionanotechnology for Public Security and Environmental Safety

Status: Completed
Years: 2011-2013
Grantor: WV HEPC
PI: David Lederman
My Role: Contributor/Researcher
Total: 1,000,000 (\$100,113 are funds for which I was responsible)

8. Technology for the simultaneous measurement of structural and mechanical properties of biological surfaces with nano-scale resolution

Status: Completed
Years: 2010
Grantor: The Brodie Entrepreneurial and Development Fund
PI: Justin Legleiter
Total: \$35,000

9. Structural analysis of oligomers formed by mutant huntingtin fragments using atomic force microscopy (Postdoctoral Fellowship).

Status: Completed
Years: 2007-2008
Grantor: Hereditary Disease Foundation
Fellow: Justin Legleiter
Mentor: Paul Muchowski
Total: \$122,000

E. Posters and Presentations

Talks

1. Legleiter, J. The impact of surfaces on protein aggregation associated with neurodegenerative diseases. Student Affiliates of the American Chemical Society, Concord University, Athens, WV, February 8, 2017. (Invited)
2. Legleiter, J. Post-translational modifications and membrane composition influence the interaction of huntingtin with lipid membranes. American Chemical Society 252nd National Meeting, Philadelphia, PA, August 21-25, 2016. (Platform)
3. Legleiter, J., Arndt, J.R., Chaibva, M., Gao, X., Jain, P., Sarver, O., Valentine, S. Factors Modulating the Interaction of Huntingtin with Lipid Membranes: Implications for Huntington's Disease. Biophysical Society 60th Annual Meeting, Los Angeles, CA, February 27- March 2, 2016. (Platform)
4. Legleiter, J. The impact of surfaces on protein aggregation associated with neurodegenerative disease. Dept. of Chemistry and Biochemistry. Worcester Polytechnic Institute, Worcester, MA, March 23, 2015. (Invited)

5. Legleiter, J. The impact of surfaces on protein aggregation associated with neurodegenerative disease. Structural Molecular Biology. University of Pittsburgh, Pittsburgh, PA, March 19, 2015. (Invited)
6. Legleiter, J. The impact of surfaces on protein aggregation associated with neurodegenerative disease. Marshall University, Huntington, WV, February 3, 2015. (Invited)
7. Legleiter, J. The impact of surfaces on protein aggregation associated with neurodegenerative disease. Annual Holiday Meeting and Dinner, American Chemical Society Upper Ohio Valley Section, Marietta, OH, December 8, 2014. (Invited)
8. Legleiter, J. The role of surfaces in protein aggregation associated with neurodegenerative disease. Department of Chemistry and Physics, University of California-Pennsylvania, California, PA, November 14, 2014. (Invited)
9. Legleiter, J. Tapping mode AFM tip/sample force reconstruction for the simultaneous investigation of morphological and mechanical properties of biologically relevant surfaces. South East Regional ACS meeting, Nashville, TN, October 18, 2014. (Invited)
10. Legleiter, J. The role of surfaces in protein aggregation associated with neurodegenerative disease. Department of Biochemistry and Molecular Biology, University of Melbourne, Melbourne, Australia, September 25, 2013. (Invited)
11. Legleiter, J. The role of surfaces in protein aggregation associated with neurodegenerative disease. ComBio2013, Perth, Australia, September 29-October 3, 2013. (Invited and sponsored by the University of Western Australia)
12. Legleiter, J. The role of surfaces in protein aggregation associated with neurodegenerative disease. Department of Chemistry, Indiana University of Pennsylvania, Indiana, Pennsylvania, October 25, 2013. (Invited)
13. Legleiter, J. The impact of surfaces on protein aggregation associated with neurodegenerative disease. West Virginia State University, Institute, WV, April 16, 2013. (Invited)
14. Legleiter, J. Cracking the code on what triggers Alzheimer's disease. Eberly Ideas Discussion Series, Charleston, WV, April 9, 2013. (Invited)
15. Legleiter, J. The role of surfaces in protein aggregation associated with neurodegenerative diseases. Northern WV ACS Section Awards Banquet, Fairmont, WV, May 2, 2013. (Invited)
16. Legleiter, J., Burke, K. A., and Yates, E. A. The Local Mechanical Properties of Lipid Bilayers are Altered by Amyloid-Forming Proteins. Biophysical Society 57th Annual Meeting, Philadelphia, PA, February 2-6, 2013. (Platform)
17. Legleiter, J. The impact of surfaces on protein aggregation associated with neurodegenerative disease. WVU Center for Neuroscience Annual Retreat, Snowshoe Mountain Resort, WV, July 27 - 28, 2012. (Invited)
18. Legleiter, J., Burke, K. A., and Yates, E. A. Investigation of protein/lipid interactions via scanning probe acceleration microscopy: theory and experiment. ASME 2012 International Design Engineering Technical Conferences (IDETC), Chicago, IL, August 12-15, 2012 (Platform)
19. Shamitko-Klingensmith, N., Wambaugh, K. M., Burke, K. A., Magnone, G. J., and Legleiter, J. Correlation of atomic force microscopy tapping forces to mechanical properties of lipid membranes. ASME 2012 International Design Engineering Technical Conferences (IDETC), Chicago, IL, August 12-15, 2012. (Platform presented by student)

20. Legleiter, J. The impact of surfaces on protein aggregation associated with neurodegenerative disease. Department of Chemical Engineering, West Virginia University, Morgantown, WV, September 14, 2012. (Invited)
21. Legleiter, J. The impact of surfaces on protein aggregation associated with neurodegenerative disease. Department of Biological Systems Engineering, Virginia Tech Polytechnic Institute, Blacksburg, VA, October 15, 2012. (Invited)
22. Legleiter, J. The impact of surfaces on protein aggregation associated with neurodegenerative disease. Department of Chemistry, Murray State University, Murray, KY, October 22, 2012. (Invited)
23. Legleiter, J. Atomic force microscopy studies of neurodegenerative related protein aggregation. Sceptical Chymists, Department of Chemistry, Gettysburg College, Gettysburg, PA, March 3, 2011. (Invited)
24. Legleiter, J. Atomic force microscopy studies of neurodegenerative related protein aggregation: technique development and application. Department of Chemistry, Saint Francis University, Loretto, PA, September 30, 2011. (Invited)
25. Legleiter, J. The Role of Surfaces in the Formation of Disease-Related Protein Aggregates. The Bioengineering Seminar Series, the Fischell Department of Bioengineering, University of Maryland, College Park, MD, October 7, 2011. (Invited)
26. Legleiter, J. The Role of Surfaces in the Formation of Disease-Related Protein Aggregates. Gladstone Institute of Neurological Disease, University of California, San Francisco, CA, November 29, 2011. (Invited)
27. Legleiter, J. The Role of Surfaces in the Formation of Disease-Related Protein Aggregates. WVNano Brown Bag Lunch, West Virginia University, Morgantown, WV, April 1, 2011. (Invited)
28. Legleiter, J. Application of scanning probe microscopic techniques for biophysics. Invited talk given to the Cell Biology Training Program, West Virginia University, Morgantown, WV, November 4, 2010. (Invited)
29. Legleiter, J. Simultaneous nanoscale mapping of morphological and mechanical properties of biological surfaces. 3rd Multifrequency AFM conference, Madrid, Spain, March 14-15, 2010. (Invited)
30. Legleiter, J. Atomic force microscopy studies of neurodegenerative related protein aggregation: technique development and application. WVNano Initiative Research Symposium 2010, Morgantown, WV, April 20, 2010. (Invited)
31. Legleiter, J. Atomic force microscopy studies of neurodegenerative related protein aggregation. Center for Neuroscience Seminar Series, Health Science Center, West Virginia University, Morgantown, WV, April 4, 2010. (Invited)
32. Legleiter, J. How an AFM tip taps and what it can tell us about nanoscale surface properties. WVNano Brown Bag Lunch Series, West Virginia University, Morgantown, WV, March 5, 2010. (Invited)
33. Legleiter, J. Atomic force microscopy studies of neurodegenerative related protein aggregation: technique development and application. Department of Chemistry, Carnegie Mellon University, Pittsburgh, PA, May 14, 2009. (Invited)
34. Legleiter, J. Atomic force microscopy studies of neurodegenerative related protein aggregation: technique development and application. 2009 WVU Chemistry Symposium, West Virginia University, Morgantown, WV, April 18, 2009. (Keynote Lecture)
35. Legleiter, J. Application of atomic force microscopy in studying neurodegenerative related

protein aggregation. Department of Biochemistry, West Virginia University Health Sciences Center, Morgantown, WV, Sept. 16, 2008. (Invited)

36. Legleiter, J., D. Czilli, R. Demattos, B. Gitter, D. Holtzman, & T. Kowalewski. (October 14-16, 2004) AFM as a tool in elucidating physicochemical aspects of Alzheimer's disease. Seeing at the Nanoscale II. Grenoble, France. (platform)
37. Legleiter, J. (2000) Evaluation of *Pectinatella magnifica* as a Potential Bio-Accumulator using ICP-AES. 23rd Annual Area Collegiate Chemistry Meeting. Martin, TN. (platform)

Posters

38. Legleiter, J., Arndt, J., Chaibva, M., Gao, X., Jain, P., Sarver, O., and Valentine S. The role of the first 17 amino acids of huntingtin in interactions with lipid membranes. HD2016: "The Milton Wexler Celebration of Life", Boston, MA, August 3-6, 2016
39. Pilkington, A. and Legleiter, J. Effect of oxidative environments on the aggregation of A β in the presence or absence of lipids. American Chemical Society 252nd National Meeting, Philadelphia, PA, August 21-25, 2016.
40. Arndt, J.R., Kondalaji, S., Maurer, M., Parker, A., Sarver, O., Legleiter, J., and Valentine, S. Gas-phase conformations of a huntingtin N-terminal peptide reveal condensed-phase heterogeneity with and without the presence of a PPII helix. Biophysical Society 59th Annual Meeting, Baltimore, MD, February 7-11, 2015.
41. Yates, E.A., and Legleiter, J. Preparation protocols of A β (1-40) promote the formation of polymorphic aggregates and altered interactions with lipid bilayers. Biophysical Society 59th Annual Meeting, Baltimore, MD, February 7-11, 2015.
42. Campbell, W., Kauffman, K., Legleiter, J., and Frey, S. The role of membrane context in the interaction of polyglutamine peptides with lipid membranes. Biophysical Society 59th Annual Meeting, Baltimore, MD, February 7-11, 2015.
43. Gao, X. Chaibva, M., Jain, P., and Legleiter, J. Cholesterol modulates the binding and subsequent aggregation of huntingtin on lipid bilayers. Biophysical Society 59th Annual Meeting, Baltimore, MD, February 7-11, 2015.
44. Chaibva, M., Arndt, J.R., Valentine, S., and Legleiter, J. Acetylation regulates the interaction of huntingtin with lipid membranes: Implications for Huntington's Disease. Biophysical Society 59th Annual Meeting, Baltimore, MD, February 7-11, 2015.
45. Shamitko-Klingensmith, N., Boyd, J. W., and Legleiter, J. Microtubule networks modulate cellular susceptibility to A β -mediated toxicity. Biophysical Society 59th Annual Meeting, Baltimore, MD, February 7-11, 2015.
46. Legleiter, J., Arndt, J.R., Chaibva, M., Gao, X., Jain, P., and Valentine, S.J. Factors modulating the interaction of huntingtin with lipid membranes: Implications for Huntington's Disease. Hereditary Disease Foundation's HD2014: The Milton Wexler Celebration of Life, Boston, MA, August 4-6, 2014.
47. Shamitko-Klingensmith, N., Boyd, J. W., and Legleiter, J. Investigating the relationship between cellular mechanics and amyloid- β in Alzheimer's disease. WVU School of Pharmacy Regional Research Forum, Morgantown, WV, June 13, 2014.
48. Shamitko-Klingensmith, N., Boyd, J. W., and Legleiter, J. Investigating the relationship between cellular mechanics and amyloid- β in Alzheimer's disease. NANOSAFE Bioelectronics and Biosensing International Symposium, Morgantown, WV, April 26-28, 2014.

49. Shamitko-Klingensmith, N., Boyd, J. W., and Legleiter, J. Investigating the relationship between cellular mechanics and amyloid- β in Alzheimer's disease. WVU Student Affiliates of the American Chemical Society Symposium. Morgantown, WV, March 22, 2014.
50. Shamitko-Klingensmith, N., Boyd, J. W., and Legleiter, J. Investigating the relationship between cellular mechanics and amyloid- β in Alzheimer's disease. Biophysical Society 58th Annual Meeting, San Francisco, CA, February 15-20, 2014.
51. Arndt, J. R., Burke, K., Brown, R., Chiabva, M., Legleiter, J., Valentine, S. J. Importance of lysine residues in huntingtin exon 1 aggregation: a study by HDX-ESI-MS and covalent labeling LC-MS-MS. American Society for Mass Spectrometry 62nd Annual Meeting, Baltimore, MD, June 15 - 20, 2014.
52. Yates, E. A., Finkel, S. L., Lynch, M., Cucco, E. M., Umbaugh, C. S., and Legleiter, J. Specific Sequences within β -Amyloid Mediate Aggregation Associated with Lipid Membranes. Biophysical Society 57th Annual Meeting, Philadelphia, PA, February 2-6, 2013.
53. Shamitko-Klingensmith, N. M., and Legleiter, J. Investigation of Temperature Induced Mechanical Changes in Supported Bilayers by Reconstructed Atomic Force Microscopy Tapping Forces. Biophysical Society 57th Annual Meeting, Philadelphia, PA, February 2-6, 2013.
54. Chaibva, M., and Legleiter, J. Development of Curved Supported Lipid Bilayers for Atomic Force Microscopy Studies of Amyloid Aggregation on Membranes. Biophysical Society 57th Annual Meeting, Philadelphia, PA, February 2-6, 2013.
55. Burke, K., Umbaugh, C. S., Hensal, K., and Legleiter, J. The Interaction of Huntingtin Exon1 with Lipid Bilayers is Regulated by polyQ Length and polyQ Flanking Sequences. Biophysical Society 57th Annual Meeting, Philadelphia, PA, February 2-6, 2013.
56. Kauffman, K.J., Burke, K.A., Legleiter, J., & Frey, S.L. The Role of Protein Context in Disease-Related Huntingtin Protein/Lipid Interface Interactions. Biophysical Society 56th Annual Meeting, San Diego, CA, February 25-29, 2012.
57. Yates, E.A., Pifer, P., Cucco, E., & Legleiter, J. The effect of surfaces on mutant A β aggregation. West Virginia University American Chemical Society Student Affiliates Chemistry Symposium, West Virginia University, Morgantown, WV, March 17, 2012.
58. Burke, K.A., Godbey, J., Hensal, K., & Legleiter, J. Flanking sequences dictate the morphology of polyQ aggregates formed at liquid/solid interfaces. West Virginia University's ACS Student Affiliates Chemistry Symposium, Morgantown, WV, March 17, 2012.
59. Legleiter, J. The role of mechanical properties in amyloid binding to cellular membranes. 2012 NSF Engineering Research and Innovation Conference, sponsored by the National Science Foundation's Division of Civil, Mechanical and Manufacturing Innovation (CMMI), Boston, MA, July 9-12, 2012.
60. Burke, K., Yates, E.A., & Legleiter, J. Amyloid forming proteins, including A β , alter the mechanical properties of lipid membranes. Alzheimer's Association International Conference, Vancouver, BC, July 14-19, 2012.
61. 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. Mammalian-derived mutant huntingtin exon-1 and shortstop demonstrate fundamental differences in early stages of aggregation. Hereditary Disease Foundation's HD2012: The Milton Wexler Celebration of Life, Boston, MA, August 1-4, 2012.
62. Burke, K.A., Umbaugh, C.S., Hensal, K., & Legleiter, J. The interaction of htt with lipid

membranes is regulated by polyglutamine length and flanking sequences. Hereditary Disease Foundation's HD2012: The Milton Wexler Celebration of Life, Boston, MA, August 1-4, 2012.

63. Burke, K., Yates, E.A., & Legleiter, J. Amyloid forming proteins, including huntingtin, alter the mechanical properties of lipid membranes. Hereditary Disease Foundation's HD2012: The Milton Wexler Celebration of Life, Boston, MA, August 1-4, 2012.
64. Yates, E.A., Burke, K.A. & Legleiter, J. Mechanical impact of amyloid-forming proteins on model lipid membranes. American Chemical Society 244th National Meeting, Philadelphia, PA, August 19-23, 2012.
65. Burke, K.A., Umbaugh, C.S., Hensal, K., & Legleiter, J. PolyQ length and flanking sequences modulate huntingtin/lipid bilayer interaction. American Chemical Society 244th National Meeting, Philadelphia, PA, August 19-23, 2012.
66. Yates, E.A., P.M. Pifer, E.M. Cucco, & J. Legleiter. The effect of surfaces on mutant A β aggregation. Center for Neuroscience Annual Retreat, Stonewall Jackson Resort, Roanoke, WV, June 6-7, 2011.
67. Burke, K.A., K. Hensal, J. Godbey, & J. Legleiter. Flanking sequences dictate the morphology of polyQ aggregates formed at liquid/solid interfaces. Center for Neuroscience Annual Retreat, Stonewall Jackson Resort, Roanoke, WV, June 6-7, 2011.
68. Lynch, M.F., E.A. Yates, & J. Legleiter. The role of specific amino acid sequences of A β in aggregate formation. 2011 Summer Undergraduate Research Symposium, West Virginia University, Morgantown, WV, July 29, 2011.
69. Wambaugh, K.M., N. Shamitko, & J. Legleiter. Nanoscale mapping of mechanical properties of biological surfaces using atomic force microscopy. 2011 Summer Undergraduate Research Symposium, West Virginia University, Morgantown, WV, July 29, 2011.
70. Umbaugh, S., K.A. Burke, & J. Legleiter. Methylene blue modulates polyglutamine peptide aggregates. 2011 Summer Undergraduate Research Symposium, West Virginia University, Morgantown, WV, July 29, 2011.
71. Umbaugh, S., K.A. Burke, & J. Legleiter. Methylene blue modulates polyglutamine peptide aggregates. 5th Annual KY-WV LSAMP Underrepresented Research Symposium, West Virginia University, Morgantown, WV, October 6-7, 2011.
72. Umbaugh, S., K.A. Burke, & J. Legleiter. Methylene blue modulates polyglutamine peptide aggregates. 2nd Annual Bridging Research Communities Conference, Carnegie Mellon University, Morgantown, WV, October 22, 2011.
73. Shamitko-Klingensmith, N., K.M. Wambaugh, & J. Legleiter. Mapping the Mechanical Properties of Surfaces in Solution with Nanometer Resolution: Applications for Biology. 22nd National NSF EPSCoR Conference, Coeur d'Alene, Idaho, October 24-27, 2011.
74. Burke, K., J. Godbey, K. Hensal, & J. Legleiter. Flanking sequences dictate the morphology of polyQ aggregates formed at solid/liquid interfaces. HD2010: the Milton Wexler Celebration of Life, Boston, MA, August 4-7, 2010.
75. Hensal, K., K. Burke, & J. Legleiter. Huntingtin exon1's polyglutamine and flanking sequence dependent lipid disruption. 2010 Summer Undergraduate Research Symposium, West Virginia University, Morgantown, WV, July 29, 2010.
76. Burke, K., J. Godbey, K. Hensal, & J. Legleiter. Modulating Effects of Flanking Sequences and Polyglutamine Length on Huntingtin Aggregation and its Interaction with Lipid Bilayers. National IDeA Symposium of Biomedical Research Excellence (NISBRE), Bethesda, MD,

June 16-18, 2010.

77. Yates, E.A. & J. Legleiter. Surface effects on mutant A β aggregation. WVNano Initiative Research Symposium 2010, Morgantown, WV, April 20, 2010.
78. Burke, K., J. Godbey, & J. Legleiter. Lipid and subcellular interactions with huntingtin exon1 fragments and polyQ peptides. WVNano Initiative Research Symposium 2010, Morgantown, WV, April 20, 2010.
79. Kumar, B. & J. Legleiter. Simultaneous nanoscale mapping of morphological, mechanical, and chemical properties of biological surfaces. WVNano Initiative Research Symposium 2010, Morgantown, WV, April 20, 2010.
80. Yates, E.A. & J. Legleiter. Surface effects on mutant A β aggregation. Eberly College of Arts and Sciences Advisory Committee Poster Presentation Reception and Dinner, Morgantown, WV. April 16, 2010.
81. Yates, E.A. & J. Legleiter. Surface effects on mutant A β aggregation. Eberly College of Arts & Sciences' Research Horizons Poster Day, Morgantown, WV, April 6, 2010.
82. Burke, K., J. Godbey, & J. Legleiter. Lipid and subcellular interactions with huntingtin exon1 fragments and polyQ peptides. Eberly College of Arts & Sciences' Research Horizons Poster Day, Morgantown, WV, April 6, 2010.
83. Yates, E.A. & J. Legleiter. Surface effects on mutant A β aggregation. West Virginia University's ACS Student Affiliates Chemistry Symposium, Morgantown, WV, March 20, 2010.
84. Kumar, B. & J. Legleiter. Simultaneous nanoscale mapping of morphological, mechanical, and chemical properties of biological surfaces. West Virginia University's ACS Student Affiliates Chemistry Symposium, Morgantown, WV, March 20, 2010.
85. Burke, K., J. Godbey, & J. Legleiter. Lipid and subcellular interactions with huntingtin exon1 fragments and polyQ peptides. West Virginia University's ACS Student Affiliates Chemistry Symposium, Morgantown, WV, March 20, 2010.
86. Pifer, P.M. & J. Legleiter. The effect of mutant A β peptide aggregation on the stability of model lipid bilayers. West Virginia University American Chemical Society Student Affiliates Chemical Symposium. Morgantown, WV, March 20, 2010.
87. Yates, E.A. & J. Legleiter. Surface effects on mutant A β aggregation. Biophysical Society 54th Annual Meeting, San Francisco, CA, February 20-24, 2010.
88. Pifer, P.M. & J. Legleiter. The effect of mutant A β peptide aggregation on the stability of model lipid bilayers. Biophysical Society 54th annual meeting. San Francisco, CA, February 20-24, 2010.
89. Legleiter, J. & P.J. Muchowski. Mutant huntingtin fragments form oligomers in a polyglutamine-length dependent manner. Biophysical Society 54th Annual Meeting, San Francisco, CA, February 20-24, 2010.
90. Burke, K., Yates, E., & Legleiter, J. Atomic force microscopy studies of neurodegenerative related protein aggregation: technique development and application. 2009 Center for Neuroscience Retreat, West Virginia University, Morgantown, WV, Nov. 2-3, 2009.
91. Pifer, P. & Legleiter, J. Disruption of lipid bilayer by β -amyloid peptide. Poster presented at the WVNano Research Symposium, West Virginia University, Morgantown, WV, May 11, 2009.
92. Pifer, P. & Legleiter, J. Disruption of lipid bilayer by β -amyloid peptide. Poster presented at the 2009 WVU Chemistry Symposium, West Virginia University, Morgantown, WV, April

18, 2009.

93. Legleiter, J., G. Lotz, J. Miller, C. Ng, P.H. Patterson, S. Finkbeiner & P. Muchowski. (Aug. 8-10, 2008) Structural analysis of aggregates formed by mutant huntingtin fragments using atomic force microscopy. HD2008: The Milton Wexler Celebration of Life, Cambridge, MA.
94. Legleiter, J. & P. Muchowski. (September 4-7, 2007) Structural analysis of oligomers formed by mutant huntingtin fragments using atomic force microscopy. Molecular Biomimetics & Bionanotechnology - II, Friday Harbor Marine Lab, San Juan Island, WA.
95. Legleiter, J. & P. Muchowski. (May 13-18, 2007) Structural analysis of oligomers formed by mutant huntingtin fragments using atomic force microscopy. Gordon Research Conferences: CAG Triplet Repeat Disorders, Aussois, France.
96. Legleiter, J. & P. Muchowski. (April 11-15, 2007) Structural analysis of oligomers formed by mutant huntingtin fragments using atomic force microscopy. Conferences Jacques Monod: Protein misfolding and aggregation in ageing and disease, Roscoff, France.
97. Legleiter, J. & P. Muchowski. (October 14-18, 2006) Structural analysis of oligomers formed by mutant huntingtin fragments using atomic force microscopy. Neuroscience 2006, Atlanta, GA.
98. Legleiter, J., P. Muchowski, & T. Kowalewski. (September 10-14, 2006) Atomic force microscopy studies of neurodegenerative related protein aggregation: technique development and application. 232th ACS National Meeting, San Francisco, CA.
99. Legleiter, J. & P. Muchowski. (August 11-13, 2006) Structural analysis of oligomers formed by mutant huntingtin fragments using atomic force microscopy. HD2006: Changes, Advances and Good News (CAG)_n, Cambridge, MA.
100. Legleiter, J., D. Czilli, R. Demattos, B. Gitter, D. Holtzman, & T. Kowalewski. (October 21-22, 2004) AFM as a tool in elucidating physicochemical aspects of Alzheimer's disease. 5th Neurobiology of Aging Conference. San Diego, CA.
101. Legleiter, J. & T. Kowalewski. (October 6-8, 2004) Improvement of Tapping Mode AFM Imaging Stability by Operation Far Below Resonance Frequency of a Cantilever. Science 2004. Pittsburgh, PA.
102. Legleiter, J., D. Czilli, R. Demattos, B. Gitter, D. Holtzman, & T. Kowalewski. (July 17-22, 2004). Static and dynamic AFM studies of β -amyloid aggregates and their interaction with relevant biological macromolecules. 9th International Conference on Alzheimer's Disease and Related Disorders, Philadelphia, PA.
103. Legleiter, J., D. Czilli, R. Demattos, B. Gitter, D. Holtzman, & T. Kowalewski. (Feb. 15-18, 2004). Static and dynamic AFM studies of the effect of anti-A β antibodies on A β aggregates and their formation. Biophysical Society 48th Annual Meeting, Baltimore, MD.
104. Legleiter, J. and T. Kowalewski (October 19-22, 2003). Improvement of Tapping Mode AFM Imaging Stability by Operation Far Below Resonance Frequency of a Cantilever. Abstracts of Papers, 35th ACS Central Regional Meeting, Pittsburgh, PA.
105. Legleiter, J. and T. Kowalewski (March 23-27, 2003). Static and dynamic AFM studies of β -amyloid aggregates and processes leading to their formation. New Orleans, LA, 225th ACS National Meeting, New Orleans, LA.
106. Legleiter, J., R. Demattos, D. Holtzman, & T. Kowalewski. (March 23-27, 2003). In situ AFM studies of astrocyte-secreted apolipoprotein E- and J-containing lipoproteins. 225th ACS National Meeting, New Orleans, LA.
107. Legleiter, J., R. Demattos, D. Holtzman, & T. Kowalewski. (May 3-4, 2002). Atomic Force Microscopy Study of Self-Assembly of β -Amyloid Peptides. From Structured Fluids

to Complex Nanostructures: symposium honoring the career of Professor Guy C. Berry, Carnegie Mellon University, Pittsburgh, Pa.

F. Patents

1. Kowalewski, T. & J. Legleiter. Methods and Apparatuses Using Proximal Probes. US 7,464,583. June 6, 2006.

G. Teaching Experience

- 2008-present Assistant/Associate Professor, The C. Eugene Bennett Department of Chemistry, West Virginia University, Morgantown, WV
Developed graduate level courses: CHEM 549: Biophysical Chemistry, CHEM 548: Proximal Probe Techniques, and CHEM 593: Colloids and Surface Science
Taught undergraduate Biochemistry II, Physical Chemistry II (Quantum Mechanics and Chemical Dynamics), and Physical Chemistry Laboratory courses (both short and long sequences), developed new lab exercises.
- 2016, 2017 Mentor, Chemistry Research Experience for Undergraduates (REU), West Virginia University, Morgantown, WV
Program to provide research experience in Chemistry to undergraduate students from the economically depressed Appalachian area.
- 2009, 2011, 2013, 2015 Mentor, Honors Summer Undergraduate Research Experience (SURE), West Virginia University, Morgantown, WV
Program to provide research experience to undergraduate students.
- 2010-present Mentor, WVnano Summer Undergraduate Research Experience (SURE), West Virginia University, Morgantown, WV
Program to provide research experience to undergraduate students.
- 2010, 2011 Mentor, WVnano Research Experience for Undergraduates (REU), West Virginia University, Morgantown, WV
Program to provide research experience in nanoscience to undergraduate students from the economically depressed Appalachian area.
- 2010 Mentor, Center for Neurosciences Summer Undergraduate Research Internships (SURI), West Virginia University, Morgantown, WV
Program to provide research experience in neuroscience to undergraduate students.
- 2007 Mentor, Summer Research Training Program (SRTP), University of California, San Francisco
Mentored an undergraduate student participating in SRTP, which is a program designed to encourage students from underrepresented groups to pursue research careers and provide them a unique training experience.
- 2004 Teaching Assistant, Department of Chemistry, Carnegie Mellon University
Assistant for graduate level course on proximal probe techniques. Duties for this course included:

- *The development of educational software to model the physics underlying the operation of atomic force microscopy, which is still used in courses.*
- *Preparation and grading of homework assignments and exams.*
- *Presenting guest lectures on areas within my expertise.*

2000-2001 Teaching Assistant, Department of Chemistry, Carnegie Mellon University
Lab instructor for analytical lab and recitation instructor for modern chemistry courses.

1999-2000 Teaching Assistant, Department of Chemistry, Murray State University
Lab instructor for first year chemistry lab and non-major courses.

H. Training and Mentoring (at WVU):

Junior Faculty

Stephen Valentine	2013-present	Via the Junior Faculty Mentoring Program in the Department of Chemistry (WVU)
Tapan Khan	2016-present	Via the Faculty Mentoring Program in the BRNI (WVU)
Carsten Milsmann	2016-present	Via the Junior Faculty Mentoring Program in the Department of Chemistry (WVU)
Peng Li	2017-present	Via the Junior Faculty Mentoring Program in the Department of Chemistry (WVU)

Graduate Students

Kathleen Burke	2009-2013	(currently: Principal Scientist at Eurofins Lancaster Laboratories; previously: Postdoctoral Fellow at Brown University)
Elizabeth Yates	2009-2013	(currently: Assistant Professor at the Naval Academy)
Bharath Kumar	2009-2010	(currently: Education Graduate Program at the University of Kentucky)
Nicole Shamitko-Klingensmith	2011-2014	(currently: Senior Scientist at the LORD corporation in Erie, PA)
Maxmore Chaibva	2012-2016	(currently: Engineer at Intel in Portland, OR)
Jim Arndt	2012-2015	(Currently: Scientist at Johnson and Johnson; co-advised with Dr. Stephen Valentine)
Xiang Gao	2013-2015	(Currently: Graduate student in Computer Science at WVU)
Albert Pilkington	2014-present	
Sharon Groover	2015- present	
Adewale Adegbuyiro	2015-present	
Faezeh Sedighi	2015-present	
Maryssa Beasley	2018-present	

Undergraduate Students

Phil Pifer	2008-2010	(Next position: MD/PhD program at WVU)
Jordan Godbey	2009-2010	(Next position: MD program at WVU)

Anthony Giovengo	2009	(Next position: Chemistry PhD program at Kent State University)
Kaitlin Hansel	2010	(Next position: Chemistry PhD program at Indiana University)
Elena Cucco	2010	(Next position: Psychology graduate program at Fairleigh Dickinson University)
Michael Lynch	2011-2012	(Next position: MD program at WVU)
George Magnone	2011	(Next position: MD program at WVU)
Charles Umbaugh	2011-2012	(Next position: PhD program at Purdue University)
Kelley Molchanoff	2011	(Next position: Chemistry PhD program at WVU)
Pranav Jain	2013-2016	(Next position: MD program at WVU)
Connor Levy	2013-2015	(Next position: PhD program in public health at WVU)
Olivia Sarver	2014-2015	(Next position: Technician at Naval Research Laboratories)
Ashley Leslie	2014-2016	(Next position: Biology PhD program at Carnegie Mellon University)
Tim Ferrebee	2016-present	
Garima Agarwal	2016-present	
Allison Korman	2016-present	
Katie Kapp	2016	(Summer REU student)
Barry Liang	2016	(Summer REU student)
Caleb Fan	2017-present	
John Bard	2017-present	
Morgan Nyman	2017	(Summer REU student)

Summer Graduate Education Students

Sherry Finkel	2012	(Next position: Public Health graduate program at WVU)
Sarah Esker	2013	(Next position: High School Teacher)
Peter Grimson	2015	(Next position: Education graduate program at WVU)

*In addition, I have served on 34 other graduate student committees.

Grants, Fellowships, and Honors Awarded to Trainees

2017	John Bard	Best poster at the WVU Summer Undergraduate Research Symposium (biological sciences division)
2017	Morgan Nyman	Best poster at the WVU Summer Undergraduate Research Symposium (physical sciences division)
2017	Adewale Adegbuyiro	The C. Eugene Bennett Fellowship
2017	Faezeh Sedighi	The C. Eugene Bennett Fellowship
2017	Albert Pilkington	John Conard Fellowship
2016	Ashley Leslie	Best poster at the WVU Chemistry Symposium
2015	Albert Pilkington	The C. Eugene Bennett Fellowship
2015	Maxmore Chaibva	John Conard Fellowship
2014	Maxmore Chaibva	The C. Eugene Bennett Fellowship
2014	Nicole Shamitko-Klingensmith	The C. Eugene Bennett Fellowship
2013	Nicole Shamitko	WVU's Women in Science and Engineering Award

	Klingensmith	
2012	Nicole Shamitko-Klingensmith	NSF Integrative Graduate Education and Research Traineeship (\$30,000)
2011	Nicole Shamitko-Klingensmith	Best poster in category at the 22nd National NSF EPSCoR Conference, Coeur d'Alene, Idaho
2011	Charles Umbaugh	3rd best poster at the KY-WV LSAMP Conference
2011	Kathleen Burke	WVU's Women in Science and Engineering Award
2011	Nicole Shamitko-Klingensmith	NSF Integrative Graduate Education and Research Traineeship (\$30,000)
2011	Kathleen Burke	John Conard Fellowship
2011	Elizabeth Yates	The C. Eugene Bennett Fellowship
2010	Kathleen Burke	John Conard Fellowship
2010	Elizabeth Yates	The C. Eugene Bennett Fellowship
2010	Elizabeth Yates	2nd best poster at the WVU Chemistry Symposium
2009	Phil Pifer	Best poster at the WVU Chemistry Symposium
2009	Phil Pifer	Best poster at WVNano Initiative Research Symposium

I. Service

Editorial Boards

AIMS Biophysics 2016 - present

Journal Referee/Reviewer (ad hoc)

ACS Nano 2012 - present
 ACS Chemical Neuroscience 2015 - present
 BBA-Biomembranes 2011 - present
 Biomacromolecules 2012 - present
 Biochemistry 2012 - present
 Journal of the American Chemical Society 2013 - present
 Journal of Molecular Biology 2011 - present
 Journal of Molecular Medicine 2013 - present
 Langmuir 2008 - present
 Mountaineer Undergraduate Research Review 2008
 Nanotechnology 2010 - present
 Nature Communications 2014 - present
 Neuropeptides 2013 - present
 Physics Letters A 2010 - present
 PLoS ONE 2013 - present
 Recent Patents in Nanotechnology 2010 - present
 Springer publishing 2008, 2010
 Soft Matter 2014 - present

Research Grant Reviewer

Alzheimer's Association 2010 – present
 Canada Foundation for Innovation 2013
 Medical Research Council (UK) 2015
 National Institutes of Health (ad hoc) 2015
 National Science Foundation 2011 – present
 WV Senate Grants 2011 – present
 DAAD PRIME 2016

Service at Conferences, Symposia, and Workshops

Review Coordinator, Nonlinear Mechanics, Dynamics, and Control in Atomic Force Microscopy, ASME 2014, Boston, MA	2015
Review Coordinator, Nonlinear Mechanics, Dynamics, and Control in Atomic Force Microscopy, ASME 2014, Buffalo, NY	2014
Session Co-chair, Protein Assemblies and Aggregates, 57th Annual Meeting of the Biophysical Society, Philadelphia, PA	2013
Submission Reviewer, ASME 2012 International Design Engineering Technical Conferences (IDETC), Chicago, IL	2012
Panelist, WVU ADVANCE workshop on managing research funds, Morgantown, WV	2012
Panelist, Newer Faculty Research Workshop, WVU, Morgantown, WV	2012
Session Chair, WVnano Symposium, Morgantown, WV	2010
Judge, WVU Chemistry Research Symposium, Morgantown, WV	2010
Judge, Summer Undergraduate Research Symposium, Morgantown, WV	2009, 2010
University Representative, BIO International Convention, Washington DC	2011
Presenter and tour guide, International Year of Chemistry Celebration, the C. Eugene Bennett Department of Chemistry, Morgantown, WV	2011
Presenter and Organizer, Review session for incoming graduate students taking the Physical Chemistry Guidance Exam, the C. Eugene Bennett Department of Chemistry, Morgantown, WV	2011
Presenter, Seminar on Research Ethics for incoming graduate students, the C. Eugene Bennett Department of Chemistry, Morgantown, WV	2011
Panelist, CAREER Award Proposal Workshop @ WVU, Morgantown, WV	2011, 2012

Media Appearances

Interview with Cathy Bonnstetter of the West Virginia Times concerning the WVU Dual Careers Program	November 2008
Interview with West Virginia Public Broadcasting, http://www.wvpubcast.org/newsarticle.aspx?id=21820	September 19, 2011
Inside WVU half-time feature on radio broadcast of the WVU vs Maryland football game, http://wvutoday.wvu.edu/resources/1/1316019450.mp3	September 17, 2011
Interview with local news broadcast on WBOY	September 2011

Department and College

Chair, Departmental Web and Graduate Flyer Development Committee	2009 – 2011
Chair, Search committee for Laser Spectroscopy Faculty (Chemistry department)	2010 – 2011
Co-Chair, WVU Rookies Club	2010-2011
Chair, Search committee for Computational Chemistry Faculty Position (Chemistry department)	2011 – 2012
Member, Department Graduate Studies Committee	2011 – 2014
Chair, Department Graduate Studies Committee	2015 – present
Member, College Graduate Studies Committee	2012 –2014, 2016-2017
Member, Ad hoc Graduate Recruiting Committee (Chemistry department)	2012
Member, Search committee for Soft Matter Physicist (Physics department)	2012 – 2013
Member, Search committee for Teaching Assistant Professor	2014-2015

(Chemistry department)	
Member, Search committee for Visiting Teaching Professor (Chemistry department)	2014-2015
Member, Accreditation and Assessment Reports Committee (Chemistry department)	2017-present
Member, Executive Committee (Chemistry department)	2017-present
Member, Faculty Additions and Space Allocations Committee	2017-present
Member, Shared Instruments Committee (Chemistry department)	2017-present
Member, Shared Facilities Steering Committee (University level)	2016-2017

American Chemical Society

Chair-Elect, Northern West Virginia Section of the American Chemical Society	2014
Chair, Northern West Virginia Section of the American Chemical Society	2015

J. Professional References

Tomasz Kowalewski (PhD advisor)
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