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Professional Preparation

Undergraduate Institution:	Cornell University, Chemistry, B.A.	1991
Graduate Institution:	University of Chicago, Chemistry, Ph.D.	1996
Postdoctoral Institutions:	University of California, San Diego	1997-1998
	The Scripps Research Institute, La Jolla	1998-2003

Academic Appointments

Associate Chair of JILA, NIST & University of Colorado 2024-2026

Associate Fellow and Fellow of JILA, NIST & University of Colorado 2003-present

Adjoint Assistant and Associate Professor of Chemistry 2003-present
University of Colorado at Boulder

Guest Professor 2013-present
State Key Laboratory for Precision Spectroscopy
East China Normal University, Shanghai, China

Awards

Arthur S. Flemming Award 2017; U.S. Department of Commerce Gold Medal 2017; U.S. Department of Commerce Bronze Medals 2016 and 2023

Service to Scientific Organizations, Conference organizing, etc.

Technical program committee member for 2024 SPIE "Quantum effects and measurement techniques in biology & biophotonics"; Co-organized symposium on Quantum Biophotonics at CLEO 2020; APS Division of Laser Science Distinguished Travelling Lecturer (2020-); Co-organizer of Quantum Biophotonics Symposium at CLEO 2020; APS Division of Laser Science Nominating Committee (2016, Chair in 2018); Organizing Committee of "Imaging for Precision Medicine" workshop at NIST Gaithersburg, May 2017; Biophotonics and Optofluidics Sub-committee Member for CLEO S&I 2014-2016; Elected Member-at-Large on Executive Committee of APS Division of Laser Science (2013-2015); Co-Organizer of Telluride Science Research Center Workshop on Protein Dynamics (2009 and 2011); Member of NIST Research Advisory Committee (2008)

Courses Taught at the University of Colorado

Chem 4411, Physical Chemistry with Applications to Biochemistry I; Chem 4511, Physical Chemistry I; Chem 4521, Physical Chemistry for Engineers; Chem 4531, Physical Chemistry II; Chem 6401, Physical Chemistry Graduate Seminar; Chem 6411, Advanced Quantum Mechanics; Chem 5591, Advanced Molecular Spectroscopy

Proposal Reviews/Panels

U.S. Department of Energy; NIH, EBIT study section NSF (ad-hoc and panel service throughout Chemistry, Biology and Physics Directorates) ; Panel Member for NSF Instrument Development for Biological Research Program (2008 - 2012); Petroleum Research Fund of the American Chemical Society; NIST Bioscience Competence Program Panel; *Ad hoc* Panel Member/Reviewer for NIH NHLBI Intramural Research Program (2009); Italian Ministry of Health; U.S.-Israel Binational Science Foundation; U.S. Army Research Office

Patents

"Bioluminescent single photon bioreactor and performing absolute quantification of light-producing activity by enzymes," pending

"Particle analysis and sorting apparatus and methods," US 10,955,330 B2 (Mar 23, 2021)

"X-ray spectrometer" U.S. Patent No. 10,914,694 B2 (Feb 9, 2021).

"Particle analysis and sorting apparatus and methods," U.S. Patent No. 10,564,088 (Feb 18, 2020)

"Optically integrated microfluidic cytometer for high throughput screening of photophysical properties of cells or particles," U.S. Patent No. 8,618,510 (Dec 31, 2013)

Exhibited Artwork

"Murano glass rendition of the heme domain of FixL"- part of the "Art in Science/Science in Art" traveling exhibition which has visited several museums, including the Denver Museum of Nature and Science, The New York Hall of Science, and Tecnológico de Monterrey in Mexico City

Publications

1. A. Yabushita, C.Y. Cheng, Y.K. Ko, T. Kobayashi, I. Iwakura and R. Jimenez (2024) "Excited state vibrational dynamics reveals a photocycle that enhances the photostability of the TagRFP-T fluorescent protein," *J. Phys. Chem. B*, **128**, 1188

2. S. Mukherjee, N. Douglas and R. Jimenez (2024) "Influence of fluorescence lifetime selections and conformational flexibility on brightness of FusionRed variants," *J. Phys. Chem. Lett*. **14**, 1644.

3. M. Sette, L.A. Johnson, R. Jimenez, and F.A.A. Mulder (2023) "Backbone ^{1}H, ^{15}N and ^{13}C resonance assignments of the 27 kDa fluorescent protein mCherry," *Biomol. NMR Assign*, **17**, 243.

4. Mukherjee, P. Manna, N. Douglas, P.P. Chapagain and R. Jimenez (2022) "Conformational dynamics of mCherry variants: a link between sidechain motions and fluorescence brightness," *J. Phys Chem B,* **127**, 52.

5. S. Mukherjee, P. Manna, S.T. Hung, F. Vietmeyer, P. Friis, A.E. Palmer, and R. Jimenez (2022) "Directed Evolution of a Bright Variant of mCherry: Suppression of Nonradiative Decay by Fluorescence Lifetime Selections," *J. Phys. Chem B*. **126**, 4659.

6. S. Mukherjee, C. Thomas, R. Wilson, E. Simmerman, S.T. Hung and R. Jimenez (2022) "Characterizing Dark State Kinetics and Single Molecule Fluorescence of FusionRed and FusionRed-MQ at Low Irradiances," *Phys. Chem. Chem. Phys*. **24**, 14310.

7. S. Mukherjee and R. Jimenez (2022) "Photophysical Engineering of Fluorescent Proteins: Accomplishments and Challenges of Physical Chemistry Strategies," *J. Phys. Chem B.*, **126**, 735.

8. T. Lyu, S.H. Sohn, R. Jimenez and T. Joo (2022) "Temperature-dependent fluorescence of mPlum fluorescent protein from 295 K to 20 K," *J. Phys. Chem. B.,***126***, 2337.*

9. A. Mikhaylov, R.N. Wilson, K.M. Parzuchowski, M.D. Mazurek, C.H. Camp, M.J. Stevens, and R. Jimenez (2022) "Hot-band absorption can mimic entangled two-photon absorption," *J. Phys. Chem. Lett.*, **13**, 1489.

10. M. Xu, D. George, R. Jimenez, and A. Markelz (2021) "Photoswitching of protein dynamical collectivity," *Photonics*, **8**, 302.

11. D.J. Lum, M.D. Mazurek, A. Mikhaylov, K.M. Parzuchowski, R.N. Wilson, R. Jimenez, T. Gerrits, M.J. Stevens, M.T. Cicerone, C.H. and Camp (2021) "Witnessing the survival of time-energy entanglement through biological tissue and scattering media," *Biomedical Optics Express*, **12**, 3658-3670.

12. K.M. Parzuchowski, A. Mikhaylov, M.D. Mazurek, R.N. Wilson, D.J. Lum, T. Gerrits, C.H. Camp, M.J. Stevens, and R. Jimenez (2021) "Setting Bounds on Entangled Two-Photon Absorption Cross Sections in Common Fluorophores," *Physical Review Applied*, **15**, 044012

13. S. Mukherjee, S.T. Hung, N. Douglas, P. Manna, C. Thomas, A. Ekrem, A.E. Palmer and R. Jimenez (2020) "Engineering of a brighter variant of the FusionRed fluorescent protein using lifetime flow-cytometry and structure-guided mutations," *Biochemistry, **59**,* 3669

14. A. Mikhaylov, K.M. Parzuchowski, M.D. Mazurek, D.J. Lum, T. Gerrits, C.H. Camp, M.J. Stevens, and R. Jimenez (2020) "A comprehensive experimental system for measuring molecular two-photon absorption using an ultrafast entangled photon pair excitation source," *Proc. SPIE 11295*, Advanced Optical Techniques for Quantum Information, Sensing, and Metrology, 112950Q. DOI: 10.1117/12.2541888

15. Y. Liu, Z. Chen, X. Wang, S. Cao, J. Xu, R. Jimenez and J. Chen (2020) "Ultrafast spectroscopy of biliverdin dimethyl ester in solution: pathways of excited-state depopulation" *Physical Chemistry Chemical Physics*, **22**, 19903.

16. S.T. Hung, S. Mukherjee, and R. Jimenez (2020) "Enrichment of rare events using a multi-parameter high throughput microfluidic droplet sorter," *Lab on a Chip,* **20***, 834.*

17. J.D. Slocum, A.E. Palmer and R. Jimenez (2019) "Intramolecular Fluorescent Protein Association in a Class of Zinc FRET Sensors Leads to Increased Dynamic Range," *J. Phys. Chem. B*, **123**, 3079.

18. X Cao, C. Zhang, Z. Gao, Y. Liu, Y. Yang, J. Chen, R. Jimenez and J. Xu (2019) "Ultrafast internal conversion dynamics of bilirubin bound to UnaG and its N57A mutant," *Phys. Chem. Chem. Phys.* **21**, 2365.

19. P. Manna, S.T. Hung, S. Mukherjee, P. Friis, D.M. Simpson, M. Lo, A.E. Palmer, and R. Jimenez (2018) "Directed evolution of excited-state lifetime and brightness in FusionRed using a microfluidic sorter," *Integr. Biol*. **10**, 516-526.

20. E. Braselmann, A.J. Wierzba, J.T. Polaski, M. Chrominski, Z.E. Holmes, S.T. Hung, D. Batan, J.R. Wheeler, R. Parker, R. Jimenez, D. Gryko, R.T. Batey and A.E. Palmer (2018) "A multicolor riboswitch-based platform for imaging of RNA in live mammalian cells," *Nature Chem. Biol.*, **14**, 964-971.

21. K.P. Carter, M.C. Carpenter, B.L. Fiedler, R. Jimenez, and A.E. Palmer (2017) "Critical comparison of FRET-sensor functionality in the cytosol and endoplasmic reticulum and implications for quantification of ions," *Anal. Chem.* **89**, 9601-9608.

22. G.C.H. Mo, B. Ross, F. Hertel, P. Manna, X. Yang, E. Greenwald, C. Booth, A.M. Plummer, B. Tenner, Z. Chen, Y. Wang, E.J. Kennedy, P.A. Cole, K.G. Fleming, A. E. Palmer, R. Jimenez, J. Xiao, P. Dedecker, and J. Zhang (2017) "Genetically encoded biosensors for visualizing live-cell biochemical activity at super-resolution," *Nature Methods* **14**, 427-434.

23. G.C. O'Neil, L. Miaja-Avila, Y.I. Joe, B.K. Alpert, M. Balasubramanian, D.M. Sagar, W. Doriese, J.W. Fowler, W.K. Fullagar, N. Chen, G.C. Hilton, R. Jimenez, B. Ravel, C.D. Reintsema, D.R. Schmidt, K.L. Silverman, D.S. Swetz, J. Uhlig, and J.N. Ullom, (2017) "Ultrafast Time-Resolved X-ray Absorption Spectroscopy of Ferrioxalate Photolysis with a Laser Plasma X-ray Source and Microcalorimeter Array," *J. Phys. Chem. Lett* **8**, 1099-1104.

24. B.L. Fiedler, S. van Buskirk, K.P. Carter, Y. Qin, M.C. Carpenter, A.E. Palmer, and R. Jimenez (2016) "Droplet Microfluidic Flow Cytometer for Sorting on Transient Cellular Responses of Genetically-Encoded Sensors," *Analytical Chemistry* **89**, 711-719.

25. V.L. Lychagov, A.A. Shemetov, R. Jimenez, and V.V. Verkhusha (2016) "Microfluidic system for in-flow reversible photoswitching of near-infrared fluorescent proteins," *Analytical Chemistry* **88**, 11821-11829.

26. L. Miaja-Avila, G.C. O'Neil, Y.I. Joe, B.K. Alpert, N.H. Damrauer, W.B. Doriese, S.M. Fatur, J.W. Fowler, G.C. Hilton, R. Jimenez, C.D. Reintsema, D.R. Schmidt, K.L. Silverman, D.S. Swetz, H. Tatsuno, and J.N. Ullom, (2016) "Ultrafast Time-Resolved Hard X-Ray Emission Spectroscopy on a Tabletop," *Physical Review X* **6**, 031047.

27. P.E. Konold, E. Yoon, J. Lee, S.L. Allen, P.P. Chapagain, B.S. Gerstman, C.K. Regmi, K.D. Piatkevich, V.V. Verkhusha, T. Joo, and R. Jimenez, (2016) "Fluorescence from Multiple Chromophore Hydrogen-Bonding States in the Far-Red Protein TagRFP675," *J. Phys. Chem. Lett* **7**, 3046-3051.

28. E. Yoon, P.E. Konold, J. Lee, T. Joo, and R. Jimenez (2016) "Far-Red Emission of mPlum Fluorescent Protein Results from Excited-State Interconversion between Chromophore Hydrogen-Bonding States," *J. Phys. Chem. Lett,* **16,** 2170-2174.

29. Y.I. Joe, G.C. O'Neil, L. Miaja-Avila, J.W. Fowler, R. Jimenez, K.L. Silverman, D.S. Swetz, J.N. Ullom (2015) "Observation of iron spin-states using tabletop x-ray emission spectroscopy and microcalorimeter sensors," *J. Phys. B: At. Mol. Opt. Phys,* **49,** 024003.

30. L. Li, M. Chang, H. Yi, M. Jia, X. Cao, Z. Zhou, S. Zhang, H. Pan, C.W. Shih, R. Jimenez, and J. Xu (2016) "Using Pyridinium Styryl Dyes as the Standards of Time-Resolved Instrument Response" *Applied Spectroscopy* **70**, 1195-1201.

31. D.M. Sagar, F.G. Baddour, P. Konold, J. Ullom, D.A. Ruddy, J.C. Johnson, and R. Jimenez (2015) "Femtosecond measurements of size-dependent spin crossover in $Fe^{II}(pyz)Pt(CN)_4$ nanocrystals," *J. Phys. Chem. Lett.* **7**, 148-153.

32. K. M. Dean, L.M. Davis, J.L. Lubbeck, P. Manna, P. Friis, A.E. Palmer, and R. Jimenez (2015) "High-Speed Multiparameter Photophysical Analyses of Fluorophore Libraries," *Anal. Chem*., **87**, 5026–5030.

33. P. Manna and R. Jimenez (2015) "Time and Frequency-domain Measurement of Ground State Recovery Times in Red Fluorescent Proteins," *J. Phys. Chem B*, **119**, 4944–4954.

34. L. Miaja-Avila, G. C. O'Neil, J. Uhlig, C. L. Cromer, M. L. Dowell, R. Jimenez, A. S. Hoover, K. L. Silverman, and J. N. Ullom (2015), "Laser plasma x-ray source for ultrafast time-resolved x-ray absorption spectroscopy," *Struct. Dyn*. **2**, 02430.

35. P. Konold and R. Jimenez (2015) "Excited State Electronic Landscape of mPlum Revealed by Two-Dimensional Double Quantum Coherence Spectroscopy," *J. Phys. Chem. B*, **119**, 3414-3422.

36. K.M. Dean, J.L. Lubbeck, L.M. Davis, C.K. Regmi, P.P. Chapagain, B.S. Gerstman, R. Jimenez, A.E. Palmer (2015) "Microfluidics-based selection of red-fluorescent proteins with decreased rates of photobleaching," *Integr. Biol.* **7**, 263-273.

37. P. Konold, C. Regni, P.P. Chapagain, B.S. Gerstman, R. Jimenez, (2014) " Hydrogen Bond Flexibility Correlates with Stokes Shift in mPlum Variants," *J. Phys. Chem B.* **118**, 2940-2948.

38. R.E. Erickson and R. Jimenez, (2013) "Microfluidic cytometer for high-throughput measurement of photosynthetic characteristics and lipid accumulation of individual algal cells," *Lab on a Chip,* **13,** 2893-2901.

39. L.M. Davis, J.L. Lubbeck, K.M. Dean, A.E. Palmer, and R. Jimenez, (2013) "Microfluidic cell sorter for use in developing red fluorescent proteins with improved photostability," *Lab on a Chip*, **13**, 2320-2327.

40. E.A. Pozzi, L.R. Schwall, R. Jimenez, and J.M. Weber, (2012) “Pressure induced changes in the fluorescence behavior of red fluorescent proteins,” *J. Phys. Chem. B*, **116**, 10311-10316.

41. J.L. Lubbeck, K.M. Dean, H. Ma, A.E. Palmer, and R. Jimenez, (2012) “Microfluidic flow cytometer for quantifying photobleaching of fluorescent proteins in cells,” *Anal. Chem.*, **84**, 3929-3937.

42. H. Ma, E.A. Gibson, P.J. Dittmer, R. Jimenez, and A.E. Palmer, (2012) "High-throughput examination of fluorescence resonance energy transfer-detected metal-ion response in mammalian cells," *J. Am. Chem. Soc.,* **134**, 2488-91.

43. K.M. Dean, J.L. Lubbeck, J.K. Binder, L. Schwall, R. Jimenez, and A.E. Palmer, (2011) "Analysis of red-fluorescent proteins provides insight into dark-state conversion and photodegradation," *Biophys. J.,* **101**, 961-969.

44. I. Sraj, J. Chichester, E. Hoover, R. Jimenez, J. Squier, C.D. Eggleton, and D.W.M. Marr, (2010) “Cell deformation cytometry using diode-bar optical stretchers,” *Journal of Biomedical Optics,* **15***,* 047010.

45. Z. Shen, E.A. Gibson, and R. Jimenez, (2010) “Distinguishing between two and three-state equilibrium folding with three-pulse photon echo peak shift (3PEPS) spectroscopy,” in *Ultrafast Phenomena XVII*, edited by E. Riedle, R. Schoenlein, M. Chergui, D. Jonas (Oxford University Press, New York), 523-525.

46. A.D. Bristow, D. Karaiskaj, X. Dai, T. Zhang, C. Carlsson, K.R. Hagen, R. Jimenez, and S.T. Cundiff, (2009) “A versatile ultra-stable platform for optical multidimensional fourier-transform spectroscopy,” *Rev. Sci. Inst.,* **80**, 073108.

47. E.A. Gibson, Z. Shen, and R. Jimenez, (2009) “Three-pulse photon echo peak shift spectroscopy as a probe of flexibility and conformational heterogeneity in protein folding,” *Chem. Phys. Letters*, **473**, 330-335.

48. D.N. Schafer, E.A. Gibson, E.A. Salim, A.E. Palmer, R. Jimenez, and J. Squier, (2009) "Microfluidic cell counter with embedded optical fibers fabricated by femtosecond laser ablation and anodic bonding," *Opt. Express,* **17**, 6068-6073

49. E.A. Gibson and R. Jimenez (2008) “Three-pulse photon echo spectroscopy as a probe of flexibility and conformational heterogeneity in protein folding,” in *Ultrafast Phenomena XVI*, edited by P. Corkum, S. de Silvestri, K.A. Nelson, E. Riedle, R.W. Schoenlein (Springer-Verlag, Berlin), 562-564.

50. J.D. Satterlee, C. Suquet, A.K. Bidwai, J.E. Erman, L. Schwall, and R. Jimenez (2008) “Mass instability in isolated recombinant FixL heme domains of *Bradyrhizobium Japonicum* (*Bj*FixLH),” *Biochemistry* **47**, 1540-1553.

51. “Nonlinear femtosecond electronic spectroscopy of proteins” for Ultrafast Optics (J. Squier and R. Trebino, Eds.),

52. W. Amir, D.N. Schafer, C.G. Durfee, J.A. Squier, E.A. Gibson, L. Kost, and R. Jimenez, (2008) “Linear spatio-temporal characterization of a UV microscope objective for nonlinear imaging and spectroscopy by using two-dimensional spectral interferometry,” *Journal of Microscopy*, **230** part 1, 4.

53. D. Schafer, E.A. Gibson, W. Amir, R. Erickson, J. Lawrence, T. Vestad, J. Squier, R. Jimenez, and D.W.M. Marr, (2007) “Three-dimensional chemical concentration maps in a microfluidic device using two-photon absorption fluorescence imaging” *Optics Letters,* **32**, 2568.

54. S. Kane, R. Jimenez, L. Kuznetsova, F. Wise, H. Kapteyn, and B. Touzet, (2007) "Reflection grisms compensate dispersion in ultrafast systems," *Laser Focus World*, **43**, 95.

55. B. Cho, C.F. Carlsson, and R. Jimenez, (2006) "Photon echo spectroscopy of heme proteins and porphyrins: effects of quasi-degenerate electronic structure on the peak shift decay," *J. Chem. Phys*., **124**, 144905.

56. E.A. Gibson, D.M. Gaudiosi, H.C. Kapteyn, R. Jimenez, S. Kane, R. Huff, C. Durfee, and J. Squier, (2006) "Efficient reflection grisms for pulse compression and dispersion compensation of femtosecond pulses," *Optics Letters,* **31**, 3363-5.

57. D.M. Gaudiosi, E. Gagnon, A.L. Lytle, J. Fiore, M.M. Murnane, H.C. Kapteyn, R. Jimenez, and S. Backus, (2005) "Scalable multi-kilohertz repetition rate Ti:sapphire amplifier based on down-chirped pulse amplification," *Opt. Express,* **14**, 9277-9283.

58. T. Stiles, R. Fallon, T. Vestad, J. Oakey, D.W.M. Marr, J. Squier, and R. Jimenez, (2005) "Hydrodynamic focusing for vacuum-pumped microfluidics," *Nanofluidics and Microfluidics*, **1**, 280-283.

59. A.A. Henry, R. Jimenez, D. Hanway, and F.E. Romesberg, (2004) "Preliminary characterization of light harvesting in *E-coli* DNA photolyase," *ChemBiochem*, **5**, 1088-1094.

60. R. Jimenez, G. Salazar, J. Yin, T. Joo, and F.E. Romesberg, (2004) "Protein dynamics and the immunological evolution of molecular recognition," *Proc. Natl. Acad. Sci. USA*, **101**, 3803-3808.

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62. R. Jimenez and F.E. Romesberg, (2002) "Excited state dynamics and heterogeneity of folded and unfolded states of cytochrome c," *J. Phys. Chem. B.*, **106**, 9172-9180.

63. J.K. Chin, R. Jimenez, and F.E. Romesberg, (2002) "Protein dynamics and cytochrome c: correlations between ligand vibrations and redox activity," *J. Am. Chem. Soc.*, **124**, 1846-1847.

64. O.K. Abou-Zied, R. Jimenez, E.H.Z. Thompson, D.P. Millar, and F.E. Romesberg, (2002), "Solvent-dependent photoinduced tautomerization of 2-(2'-hydroxyphenyl)-benzoxazole," *J. Phys. Chem A.*, **106**, 3665-3672.

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71. C.W. Siders, A. Cavalleri, K. Sokolowski-Tinten, T. Guo, Cs. Toth, R. Jimenez, C. Rose-Petruck, M. Kammler, M.H. von Hoegen, D. von der Linde, K.R. Wilson, and C.P.J. Barty, (1999) "Ultrafast movies of atomic motion with femtosecond laser-based x-rays," in *Soft x-ray lasers and applications III*, edited by J.J. Rocca and L.B. DaSilva, (SPIE Proceedings, Bellingham), **3776**, 302-311.

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87. R. Jimenez, S.H. Kable, J.C. Loison, C.J.S.M. Simpson, W. Adam, and P.L. Houston, (1992) "The photodissociation dynamics of 3-cyclopentenone: using the impact parameter distribution as a criterion for concertedness," *J. Phys. Chem.*, **96**, 4188-4195.

88. C.E.M Strauss, R. Jimenez, and P.L. Houston, (1991) "Correlations without coincidence measurements: impact parameter distributions for dissociations," *J. Phys. Chem*., **95**, 8110-8118.

89. B. Hessen, S.A. Sunshine, T. Siegrist, and R. Jimenez, (1991) "Crystallization of reduced strontium and barium niobate perovskites from borate fluxes," *Mater. Res. Bull*., **26**, 85-90.

Invited Talks

Syracuse University, Department of Chemistry, October 24, 2023
Multiphoton Absorption: Experimental and Theoretical Aspects, Montana State University, Bozeman, August 9, 2023.
Pacifichem 2021, "Frontiers in Ultrafast Spectroscopy of Photoexcited States," Honolulu, December 2021
Multiphoton Absorption: Experimental and Theoretical Aspects, Montana State University, Bozeman, August 19, 2021.
IEEE Research and Applications of Photonics in Defense Conference (RAPID 2021), August 2, 2021.
University of California, Santa Cruz, Department of Chemistry, May 17, 2021
Royal Society Symposium "Quantum light for investigating complex molecules and materials," November 24, 2019
J. Heyrovsky Institute of Physical Chemistry, Prague, Czech Republic, October 29, 2019
Telluride Workshop on Laser-based Frontiers and Challenges in Laser-Based Biological Microscopy 2019, July 23, 2019
Aarhus University, Demark, Department of Chemistry, May 4, 2018
Colorado School of Mines, Department of Physics, February 13, 2018
NSF-STROBE Seminar, University of Colorado, February 12, 2018
East China Normal University, Shanghai, State Key Laboratory for Precision Spectroscopy, March 26, 2018
National Chiao-Tong University, Hsinchu Taiwan, June 26, 2017
National Taiwan University, Taipei, Taiwan, June 22, 2017
ACS National Meeting, March 2016
2015 Telluride Workshop on Protein Dynamics, August 2015
National Taiwan University, Department of Chemistry, July 16, 2015
University of California, Santa Barbara, Biomolecular Science & Engineering Seminar, March 4, 2015
International Symposium on Laser and Computational Biophysics, Shanghai, China, June 16, 2014

Workshop on Fluorescence Lifetime-Imaging and Flow at CYTO2014, Ft. Lauderdale, May 19, 2014
Department of Physics, National Tsinghua University, Hsinchu Taiwan, March 26, 2014
Institute of Atomic and Molecular Sciences, Academia Sinica, Taipei Taiwan, March 24, 2014
2013 Telluride Workshop on Protein Dynamics, August 5, 2013
Florida International University, Department of Physics, April 19, 2013
Vanderbilt University, Department of Chemical and Biomolecular Engineering, March 11, 2013
University of California-Los Angles, Department of Chemistry, February 25, 2013
Stanford University, Department of Chemistry, January 28, 2013
Janelia Farm Workshop on Voltage Imaging, November 7, 2012
University of Southern California, Department of Biological Sciences, October 5, 2012
Saarland University, Department of Chemistry, Saarbrueken Germany, June 21, 2012
East China Normal University, State Key Laboratory for Precision Spectroscopy, Shanghai, China, May 31, 2012
Eight Asia-Pacific Laser Symposium, Huangshan, China, May 28, 2012
Florida International University, Department of Physics, April 20, 2012
State University of New York at Buffalo, Department of Physics, March 29, 2012
University of Colorado, JILA Colloquium, September 2011
2011 Telluride Workshop on Protein Dynamics, August 2011
Pohang University of Science & Technology, Department of Chemistry, Pohang, South Korea, January 24, 2011
Korea University, Center for Multidimensional Spectroscopy, Seoul, South Korea, January 20, 2011
RIKEN, Molecular Spectroscopy Laboratory, Wako, Japan, January 18, 2011
Osaka University, Department of Chemistry, Osaka, Japan, January 13, 2011
Institute of Molecular Sciences, Okazaki, Japan, January 11, 2011
University of Illinois, Urbana-Champaign, Department of Chemistry, December 8, 2010
University of Texas, Austin, Department of Chemistry, December 2, 2010
North Carolina State University, Department of Chemistry, November 10, 2010
Duke University, Department of Chemistry, November 9, 2010
Georgia Institute of Technology, Department of Chemistry, September 21, 2010
University of California-Irvine, Department of Chemistry, May 25, 2010
University of Oregon, Department of Chemistry, May 3, 2010
University of Utah, Department of Chemistry, April 26, 2010
Notre Dame University, Department of Chemistry, April 15, 2010
Purdue University, Department of Chemistry, April 14, 2010
University of Pennsylvania School of Medicine, Department of Biophysics, March 4, 2010
Florida International University, Department of Physics, January 22, 2010
NIHLBI Laboratory of Molecular Biophysics, December 16, 2009
2009 Telluride Workshop on Protein Dynamics, August 2009
Gordon Research Conference on "Proteins in the gas phase and in solution," July 2009
University of Denver, Chemistry Department, April 9, 2009
University of North Carolina, Chapel Hill, Physics Department, March 23, 2009
Colorado School of Mines, Physics Department, February 3, 2009
2007 Telluride Workshop on Protein Dynamics, July 30, 2007
CARB/University of Maryland, May 5, 2006

2005 Telluride Workshop on Protein Dynamics, August 1, 2005
Argonne National Laboratory, Chemistry Division, September 19, 2005
University of Nevada, Reno, Physical Chemistry Seminar, April 15, 2005
OSA Annual Conference, Rochester, NY, October 12, 2004