Curriculum Vitae: James L. Cole

Department of Molecular and Cell Biology
University of Connecticut
91 North Eagleville Rd., U-3125
Storrs, CT 06269-3125
Phone: (860) 486-4333
Cell: (860) 690-2245
E-mail: james.cole@uconn.edu
Web: http://colelab.uconn.edu

Professional Positions:

2011 -	Professor Department of Molecular and Cell Biology and Department of Chemistry, University of Connecticut
2008 - 2011	Associate Professor: Department of Chemistry, University of Connecticut
2001 - 2011	Associate Professor: Department of Molecular and Cell Biology, University of Connecticut
1995 - 2000	Research Fellow: Department of Antiviral Research, Merck Research Laboratories
1991 - 1995	Senior Research Biochemist: Department of Biochemistry, Merck Research Laboratories

Education/Training:

1987 - 1991	Postdoctoral Fellow, Department of Chemistry, Stanford University
1982 - 1987	Ph.D., Department of Chemistry, University of California Berkeley
1976 - 1981	Sc.B., Biochemistry, Brown University

Awards and Professional Activities:

2022	NIH study section: Emergency Awards: Antiviral Drug Discovery (AViDD) Centers for Pathogens of Pandemic Concern.
2020	Organizer, North Eastern Structure Symposium.
2019-	Editorial board member, Biomolecules.
2018-	Member, Faculty of 1000 / Faculty Opinions.
2018	NIH Special emphasis study section.
2016 - 2017	President, Gibbs Society of Biological Thermodynamics.
2015	Editor, Methods in Enzymology, Volume 562, *Analytical Ultracentrifugation*.
2013 - 2019	Editorial board member, Biophysical Journal.
2013 -	Member, Membership Committee, Biophysical Society.
2013	Organizer: Gibbs Conference on Biothermodynamics.
2012	NIH molecular and cellular biophysics study section.
2011	NIH Program project review study section.
2010	NIH molecular and cellular biophysics study section.
2009	Organizer, North Eastern Structure Symposium
2008 - 2011	NIH shared instrumentation study section.
2005	NIH molecular and cellular biophysics study section.
2005	Chair, NIH shared instrumentation study section.
2005	NSF I/UCRC study section.
2004	Elected to Connecticut Academy of Arts and Sciences.
2003 - 2009	Member, Committee for Professional Opportunities for Women, Biophysical Society.
2001	NIH molecular and cellular biophysics study section.
2000	NIH special emphasis study section.
1998	Arne Tiselius Young Investigator Award. This award acknowledges a young investigator for accomplishment and promise in the area of analytical ultracentrifugation.

Ad hoc Reviewing:

Journals: Accounts of Chemical Research, ACS Applied Materials & Interfaces, Analytical Biochemistry, Biochemistry, Biophysical Journal, Cell Research, eLIFE, European Biophysics Journal, Frontiers in Molecular Biosciences, Journal of Biological Chemistry, Journal of Cell Biology, Journal of Molecular Biology, Journal of Physical Chemistry, Journal of the Royal Society Interface, Macromolecular Biosciences, Molecular and Cellular Biology, Nucleic Acids Research, Pharmaceutical Research, Proceedings of the National Academy of Sciences, RNA, Nature Chemical Biology, Nature Communications, Nucleic Acids Research, PLOS ONE, Protein Science, PROTEINS: Structure, Function, and Bioinformatics, Structure.

Grants: NIH, NSF, Defense Threat Reduction Agency, Wellcome Trust (UK), Canada Foundation for Innovation, National Sciences and Engineering Research Council of Canada.

Textbooks: Kuriyan, J., Konforti, B. and Wemmer, D. The Molecules of Life: Physical and Chemical Principles, Garland Science, New York, 2012.

PTR: External tenure reviewer for Haverford College, Emory University, University of Nottingham, University of Texas, University of Kansas.

Teaching Activities:

Courses:

2019 -	Biophysical Chemistry I
2005 - 2018	Foundations of structural biochemistry (graduate)
2005 -	Techniques of biophysical chemistry (graduate/undergraduate)
2002 - 2004	Introductory biochemistry (undergraduate)
2002 - 2004	Structure and function of biological macromolecules (graduate/undergraduate)

Ad hoc: Seminar in Biochemistry, Biological Chemistry (Dept. of Chemistry, University of Connecticut), Biochemistry II (University of Connecticut Health Center), Biophysics (Wesleyan University).

Workshops:

2016	Analytical ultracentrifugation workshop, Boehringer-Ingelheim.
2013	Analytical ultracentrifugation workshop, University of Washington
2009	Analytical ultracentrifugation workshop, Nanyang Technical University, Singapore
2008 - 2010	University of Connecticut / Boston Biomedical Research Foundation Analytical ultracentrifugation workshop
2002 - 2007	Coordinator, Analytical ultracentrifugation workshop at University of Connecticut
2002	Workshop: Quantifying reversible macromolecular association. Biophysical Society Annual Meeting, San Antonio, Texas.

Mentoring Activities:

Supervised 12 Ph.D. students, 4 M.A. students, 14 undergraduates (2 University Scholar and 2 Presidential Scholars) and 3 postdoctoral fellows
Served on 12 Ph.D. thesis committees and 3 M.A. committees

University Activities:

Departmental

2022	Chair, structural biology, biochemistry and biophysics search committee
2022-	Chair, Courses and curriculum committee
2020	Space Committee
2015	Chair, self-study committee
2011 - 2012	Promotion, tenure and review committee
2010 - 2011	Chair, structural biology and biophysics search committee

2008 -	Courses and curriculum committee
2008 -	Honors committee
2007	Biochemistry search committee
2005	Promotion and tenure committee
2004	Chair, X-ray crystallographer search committee
2002 - 2006	Recruitment committee
2002 -	Field of study heads committee.

University

2020- 2022	Dean's advisory council for promotion and tenure review
2018-2019	General education committee
2007 - 2011	Graduate faculty council
2007 - 2009	President's committee on technology commercialization
2006 -	Quantitative subcommittee of the general education oversight committee
2006 - 2008	Director, Partnership for excellence in structural biology. Coordinated research and training activities in structural biology across the Storrs and Health Center campuses. Developed new research assistantship program to facilitate interdepartmental collaborative research projects.
2002 - 2016	Head, National analytical ultracentrifugation facility. Supervised collaborative research, software and hardware development projects

Research Support:

Title: Targeting the Endoribonuclease of Coronaviruses.
Agency: University of Connecticut Research Foundation
Type: REP
Period: 10/01/20-07/31/21
The goal of this project was to discover inhibitors of the EndoU endoribonuclease from SARS-CoV-2 as novel agents to treat COVID-19.

Title: Small molecule activators of PKR as novel antiviral agents
Agency: Connecticut Innovations (PITCH)
Type:
Period 01/01/15-12/31/20
The goal of this project was to identify small molecule activators of PKR with activity in cell-based assays for replication of pathogenic viruses. These leads serve as proof-of-concept for VC funding to discover compounds with a favorable therapeutic profile.

Title: Mechanism for Activation of Antiviral Kinase, PKR.
Agency: NIH
Type: R01-AI53615
Period: 12/01/03-8/31/18
The goal of this project was to define the stoichiometries, affinities, free energy couplings and conformational changes of the macromolecular complexes involved in PKR activation by dsRNA.

Title: Acquisition of a state-of-the-art small angle scattering (SAXS) instrument for research and education.
Agency: NSF
Type: MRI
Period: 6/1/12-5/31/15

Title: Mechanism for Activation of RIG-I by Viral RNA

Agency: University of Connecticut Research Foundation
Type: 4619960
Period: 7/1/13-6/30/14
The goal of this project was to determine how RIG-I, a sensor of viral infection, interacts with double stranded RNAs containing a 5'-triphosphate.

Title: Structural Analysis of PKR by small angle scattering
Agency: University of Connecticut Research Foundation
Type: 458927
Period: 1/1/09-12/31/09
The goal of this pilot project was to characterize the structure of free and RNA-bound forms of PKR by small angle x-ray and neutron scattering.

Title: Centrifugal analysis of complex hetero-interactions.
Agency: NIH
Type: R21-RR18286
Period: 04/01/04-2/28/09
The goal of this project was to develop a new integrated software package to facilitate studies of complex macromolecular interactions by sedimentation equilibrium.

Title: Fluorescence Detector for the Analytical Ultracentrifuge.
Agency: University of Connecticut
Type: Provost's Research Equipment Competition
Period: 2008
This proposal funded the acquisition of a fluorescence detector analytical ultracentrifugation.

Title: Regulation of Double-Stranded RNA-Activated Protein Kinase by Macromolecular Interactions.
Agency: University of Connecticut Research Foundation
Type: 444706
Period: 1/1/02 to 6/1/03

Publications:

Google Scholar: https://scholar.google.com/citations?user=obH9-ZsAAAAJ&hl=en

1. Sladewski, T.E., Campbell, P.C., Billington, N., D'Ordine, A., Cole, J.L., de Graffenried, C.L. (2023) Cytokinesis in Trypanosoma brucei relies on an orphan kinesin that dynamically crosslinks microtubules. *Curr. Biol.*, doi: 10.1016/j.cub.2023.01.035. [Abstract] [Full Text]
2. Erlandsen, H., Jecrois, A. M., Nichols, J. C., Cole, J. L. & Royer, W. E. (2022) NADH/NAD+ binding and linked tetrameric assembly of the oncogenic transcription factors CtBP1 and CtBP2. *FEBS Lett.* **596**, 479–490. [Abstract] [Full Text]
3. Hesler, S., Angeliadis, M., Husain, B. and Cole, J. L. (2021) Contribution of dsRBD2 to PKR Activation. *ACS Omega* **6**, 11367–11374. [Abstract] [Full Text]
4. Basak, S., Sakia, N., Dougherty, L., Guo, Z., Wu, F., Mindlin, F., Lary, J.W., Cole, J.L., Ding, F. and Bowen, M.E. (2020) Probing interdomain linkers and protein supertertiary structure in vitro and in live cells with fluorescent protein resonance energy transfer. *J. Mol. Biol*. **433**, 166793. [Abstract] [Full Text]
5. Zerbe, C.M. and Cole, J.L. (2020) Regulation of PKR by Epstein-Barr Virus EBER1 RNA. *Biochemistry* **59**, 1252-1260. [Abstract] [Full Text]
6. Zerbe, C.M., Mouser, D.J. and Cole, J.L. (2019) Oligomerization of RIG-I and MDA5 2CARD Domains. *Protein Sci.* **29**, 521-526. [Abstract] [Full Text]
7. Mayo, C.B., Erlandsen, H., Mouser, D.J., Feinstein, A.G., Robinson, V.L., May, E.R., Cole, J.L. (2019) Structural basis of PKR autophosphorylation, *Biochemistry*, **58**, 2967-2977. [Abstract] [Full Text]

8. Maniaci B, Lipper CH, Anipindi DL, Erlandsen H, Cole JL, Stec B, Huxford T, Love JJ. (2019) Design of High-Affinity Metal-Controlled Protein Dimers. *Biochemistry* **58**, 2199-2207. [Abstract] [Full Text]
9. Pindrus, M.A., Cole, J.L., Kaur, J., Shire, S.J., Yadav, S. and Kalonia, D.S. (2017) Effect of aggregation on the hydrodynamic properties of bovine serum albumin. *Pharm. Res.* **34**, 2250-2259. [Abstract] [Full Text]
10. Mayo, C.B. and Cole, J.L. (2017) Interaction of PKR with single-stranded RNA. *Sci. Rep*. **6**, 3335. [Abstract] [Full Text]
11. Mayo, C.B., Wong, C.J., Lopez P.E., Lary, J.W., Cole, J.L. (2016) Activation of PKR by short stem-loop RNAs containing single-stranded arms. *RNA*, **22**, 1065-175.[Abstract][Full Text]
12. Cole, J.L. (2015) Preface: Analytical Ultracentrifugation. *Methods Enzymol.* **562**: xix-xx. PMID: 26412666.
13. Husain, B., Mayo, C. and Cole, J.L. (2015) Role of the interdomain linker in PKR activation. *Biochemistry* **55**, 253-261.[Abstract] [Full Text]
14. De, S., Bubnys, A., Alonzo, F. 3rd, Hyun, J., Lary, J.W., Cole, J.L., Torres, V.J. and Olson, R. (2015) The Relationship between glycan-binding and direct membrane interactions in *Vibrio cholerae* cytolysin, a channel-forming toxin. *J. Biol. Chem.* **290**, 28402-28415.[Abstract] [Full Text]
15. Husain, B., Hesler, S. and Cole, J.L. (2015) Regulation of PKR by RNA: Formation of active and inactive dimers. *Biochemistry* **54**, 6663-6672.[Abstract] [Full Text]
16. Launer-Felty, K., Wong, C. J., and Cole, J. L. (2015) Structural Analysis of Adenovirus VAI RNA Defines the Mechanism of Inhibition of PKR. *Biophys. J.* **108**, 748–757. [Abstract] [Full Text]
17. Kaus, K., Lary, J.W., Cole, J.L. and Olson, R. (2014) Glycan specificity of the Vibrio vulnificus hemolysin lectin outlines evolutionary history of membrane targeting by a toxin family. *J. Mol. Biol.*,**426**, 1285-1295.[Abstract] [Full Text]
18. Wowor, A.J., Yan, Y., Auclair, S.M., Yu, D., Zhang, J., May, E.R., Gross, M.L., Kendall, D.A., Cole, J.L. (2014) Analysis of SecA Dimerization in Solution. *Biochemistry* **53**, 3248-3260.[Abstract] [Full Text]
19. Launer-Felty, K. and Cole, J.L. (2014) Domain interactions in Adenovirus VAI mediate high-affinity PKR binding. *J. Mol. Biol.* **426**, 1285-1295. [Abstract] [Full Text]
20. Cole, J.L. (2013) in RNA binding proteins - Catalytic domains. in Encyclopedia of Biophysics, Roberts, G.C., Ed., Springer, Berlin / Heidelberg, pp. 2261-2264. [Full Text]
21. Yu, D., Wowor, A., Cole, J.L., and Kendall D.A. (2013). Defining the Escherichia coli SecA Dimer Interface Residues through in Vivo Site-specific Photo-crosslinking. *J. Bacteriol.* **195**, 2817-2825. [Abstract] [Full Text]
22. Ehlinger, A., Park, S., Fahmy, A., Lary, J.W., Cole, J.L., Finely, D., and Walters, K.J. (2013). Conformational Dynamics of the Rpt6 ATPase in Proteasome Assembly and Rpn14 Binding. *Structure* **21**, 735-765. [Abstract] [Full Text]
23. Winnen, B., Anderson, A., Cole, J.L., King, G.F. and Rowland, S.L. (2013). Role of the PAS sensor domains in the Bacillus subtilis sporulation kinase KinA. *J. Bacteriol.* **195**, 2349-2358. [Abstract] [Full Text]
24. Lyons, D.F., Lary, J.W., Husain, B., Correia, J.J. and Cole J.L. (2013) Are fluorescence-detected sedimentation velocity data reliable? *Analytical Biochemistry* **437**, 133-137. [Abstract] [Full Text]
25. Wostenberg, C., Lary, J.W., Sahu, D., Acevedo, R., Quarles, K.A., Cole, J.L. and Showalter, S.A. (2012) The Role of Human Dicer-dsRBD in Processing Small Regulatory RNAs. *PLoS One*, **7**, e51829. [Abstract] [Full Text]
26. Husain, B., Mukerji, I. and Cole, J.L. (2012) Analysis of high affinity binding of PKR to dsRNA. *Biochemistry* **51**, 8764-8770. [Abstract] [Full Text]
27. Cole, J.L, Correia, J.J. and Stafford, W.F. (2011) The use of analytical sedimentation velocity to extract thermodynamic linkage. Biophys. Chem. **159**, 120-128. [Abstract] [Full Text]
28. Wong, C.J., Launer-Felty, K. and Cole, J.L. (2011) Analysis of PKR-RNA interactions by sedimentation velocity. *Methods Enzymol.* **488**, 59-79. [Abstract] [Full Text]Anderson, E., Pierre-Louis, W.S., Wong, C.J., Lary, J.W. and Cole, J.L. (2011) Heparin Activates PKR by Inducing Dimerization.*J. Mol. Biol.* **413**, 973-984.[Abstract] [Full Text]
29. Wowor, A.J., Yu, D., Kendall, D.A. and Cole, J.L. (2011) Energetics of SecA dimerization *J. Mol. Biol.* **408**,87-98. [Abstract] [Full Text]

30. Bryk, R., Wu, K., Raimundo, B.C., Boardman, P.E., Chao, P., Conn, G.L., Anderson, E., Cole, J.L., Duffy, N.P., Nathan, C. and Griffin, J.H. (2011) Identification of new inhibitors of protein kinase R guided by statistical modeling. *Bioorganic and Medicinal Chemistry Letters*, **13**, 4108-4114. [Abstract] [Full Text]
31. Cole, J.L. (2010) Analysis of PKR activation using analytical ultracentrifugation. *Macromol. Biosci.* **10**, 703-710. [Abstract] [Full Text]
32. Launer-Felty, K., Wong, C.J., Wahid, A.M., Conn, G.L. and Cole, J.L. (2010) Magnesium-Dependent Interaction of PKR with adenovirus VAI RNA. *J. Mol. Biol.* **402**, 638-644. [Abstract] [Full Text]
33. Anderson E., Quartararo C., Brown R.S., Shi Y., Yao X. and Cole J.L. (2010) Analysis of Monomeric and Dimeric Phosphorylated Forms of Protein Kinase R. *Biochemistry* **49**, 1217-1225. [Abstract] [Full Text]
34. Zhang, N., Wang, Q. Ehlinger, A., Randles, L., Lary, J. W., Kang, Y., Haririnia, A., Storaska, A. J., Cole, J. L., Fushman, D. and Walters, K. J. (2009) Structure of the S5a:K48-Linked Diubiquitin Complex and Its Interactions with Rpn13. *Mol. Cell* **35**, 280-290. [Abstract] [Full Text]
35. Heinicke, L.A., Wong, C.J., Lary, J., Nallagatla, S.R., Deigelman-Parente, A., Zheng, X., Cole, J.L. and Bevilacqua, P.C. (2009) RNA Dimerization promotes PKR dimerization and activation. *J. Mol. Biol.* **390**, 319-338. [Abstract] [Full Text]
36. VanOudenhove, J., Anderson, E., Kreuger, S. and Cole, J.L. (2009) Analysis of PKR structure by small angle scattering. *J. Mol. Biol.* **387**, 910-920. [Abstract] [Full Text]
37. Cole, J.L., Lary, J.W., Moody, T. and Laue, T.M. (2008) Analytical Ultracentrifugation: Sedimentation Velocity and Sedimentation Equilibrium. *Methods Cell Biol.* **84**, 143-179. [Abstract] [Full Text]
38. Lemaire, P.A., Anderson, E., Lary, J.W. and Cole, J.L. (2008) Mechanism of PKR activation by dsRNA. *J. Mol. Biol.* **381**,351-360. [Abstract] [Full Text]
39. Anderson, E. and Cole, J.L. (2008) Domain stabilities in PKR: Evidence for weak interdomain interactions. *Biochemistry* **47**, 4887-4897. [Abstract] [Full Text]
40. Tyukhtenko, S., Deshmukh, L., Kumar, V., Lary, J. Cole, J.L., Lemmon, V. and Vinogradova, O. (2008) Characterization of neuron specific L1-CAM cytoplasmic tail: naturally disordered in solution it exercises different binding modes for different adaptor proteins. *Biochemistry* **47**, 4160-4168. [Abstract] [Full Text]
41. Robertson, P.D., Warren, E.M., Zhang, H., Friedman, D.B., Lary, J.W., Cole, J.L., Tutter, A.V., Walter, J.C., Fanning, E., Eichman, B.F. (2008) Domain architecture and biochemical characterization of vertebrate MCM10. *J. Biol. Chem.* **83**, 3338-3348. [Abstract] [Full Text]
42. Cole, J.L. (2007) Activation of PKR: An open and shut case? *Trends Biochem. Sci.* **32**, 57-62. [Abstract] [Full Text]
43. Yan, Q., Malashkevich, V.N., Fedorov, A., Fedorov, E., Cao, E., Lary, J.W., Cole, J.L., Nathenson, S.G. and Almo S.C. (2007) Structure of CD84 provides insight into SLAM family function. *Proc. Natl. Acad. Sci. USA* **104**, 10583-10588. [Abstract] [Full Text]
44. Kang, Y., Chen, X., Lary, J.W., Cole, J. L. and Walters, K.J. (2007) Defining how ubiquitin receptors hHR23a and S5a bind polyubiquitin. *J. Mol. Biol.* **369**, 168-176. [Abstract] [Full Text]
45. White, S. R., Evans, K. J., Lary, J., Cole, J. L. and Lauring, B. (2007) Recognition of C-terminal amino acids in tubulin by pore loops in Spastin is important for microtubule severing. *J. Cell Biol.* **176**, 995-1005. [Abstract] [Full Text]
46. Cao, E., Zang, X., Ramagopal, U. A., Mukhopadhaya, A., Fedorov, A., Fedorov, E., Zencheck, W. D., Lary, J. W., Cole, J. L., Deng, H., Xiao, H., Dilorenzo, T. P., Allison, J. P., Nathenson, S. G. and Almo, S. C. (2007). T cell immunoglobulin mucin-3 crystal structure reveals a galectin-9-independent ligand-binding surface. *Immunity* **26**, 311-321. [Abstract]Full Text]
47. Ucci, J. W., Kobayashi, Y., Choi, G., Alexandrescu, A. and Cole, J. L. (2007) The mechanism of interaction of the dsRNA binding domain of PKR with short dsRNA sequences. *Biochemistry* **46**, 55-65. [Abstract] [Full Text
48. Cao, E., Ramagopal, U., Fedorov, A., Fedorov, L.,Yan, Q., Lary, J.W., Cole, J.L., Nathenson, S.G. and Almo S.C. (2006) NTB-A crystal structure: implications for homophilic interactions and signaling within the SLAM family of receptors. *Immunity* **25**, 559-570. [Abstract] [Full Text]
49. Lemaire, P.A., Tessmer, I., Craig, R., Erie , D.A. and Cole, J.L. (2006) Unactivated PKR exists in an open conformation capable of binding nucleotides. *Biochemistry***45**, 9074-9084. [Abstract] [Full text]

50. Liu, Y., Cheney, M.D., Gaudet, J.J., Chruszcz, M., Lukasik, S.M., Sugiyama, D., Lary, J., Cole, J.L., Dauter, Z., Minor, W., Speck, N.A. and Bushweller, J.H. (2006) The tetramer structure of the Nervy homology two domain (NHR2) is critical for AML1/ETO's activity. *Cancer Cell* **9**, 249-260. [Abstract] [Full text]
51. Lemaire, P.A., Lary, J. and Cole, J.L. (2005) Mechanism of PKR activation: Dimerization and kinase activation in the absence of double-stranded RNA. *J. Mol. Biol.***345**, 81-90. [Abstract] [Full text]
52. Cole, J.L. (2004) Analysis of heterogeneous interactions. *Methods. Enzymol.* **384**, 212-232. [Abstract] [Full text]
53. Snyder, S., Lary, J., Chen, Y., Gollnick, P. and Cole, J.L. (2004) Interaction of the Trp RNA-binding Attenuation Protein(TRAP) with Anti-TRAP. *J. Mol. Biol.* **338**, 669-682. [Abstract] [Full text]
54. Ucci, J.W. and Cole, J.L. (2004) Global Analysis of Nonspecific Protein-Nucleic Interactions by Sedimentation Equilibrium. *Biophys. Chem.*, **108**, 127-140. [Abstract][Full text]
55. Shaw-Reid, C.A., Munshi, V., Graham, P., Wolfe, A., Witmer, M., Danzeisen, R., Olsen, D.B., Carroll, S.S., Embrey, M., Wai, J.S., Miller, M.D., Cole, J.L. and Hazuda, D.J. (2002) Inhibition of HIV-1 Ribonuclease H by a Novel Diketo Acid: 4-[5-(Benzoylamino)thien-2-yl]-2,4-dioxobutanoic Acid. *J. Biol. Chem.* **278**, 2777-2780. [Abstract] [Full Text]
56. Cole, J.L. and Garsky, V.M. (2001) Thermodynamics of peptide inhibitor binding to HIV-1 gp41. *Biochemistry* **40**, 5633-5641. [Abstract] [Full text]
57. Wojtuszewski, K., Hawkins, M.E., Cole, J.L. and Mukerji, I.J. (2001) HU Binding to DNA: Evidence for multiple complex formation and DNA bending. *Biochemistry***40**, 2588-2598. [Abstract] [Full Text]
58. Cole, J.L. (2000) Analytical Ultracentrifugation. in Encyclopedia of Separation Science, Academic Press, London., pp. 313-320.
59. Espeseth, A.S., Felock, P., Wolfe, A., Witmer M., Grobler J., Anthony, N., Egbertson, M., Melamed, J.Y., Young S., Hamill, T., Cole, J.L. and Hazuda, D.J. (2000) HIV-1 integrase inhibitors which compete with the target DNA substrate define a unique strand transfer conformation for integrase. *Proc. Natl. Acad. Sci. USA* **97**, 11244-11249. [Abstract] [Full Text]
60. Cole, J.L. and Hansen, J.C. (1999) Analytical ultracentrifugation as a contemporary biomolecular research tool. *J. Biomolecular Techniques* **10**, 163-174. [Full Text]
61. Li Y., Yan Y., Zugay-Murphy J., Xu B., Cole J.L., Witmer M., Felock P., Wolfe A., Hazuda D., Sardana, M.K., Chen Z., Kuo L.C. and Sardana V.V. (1999) Purification, solution properties and crystallization of SIV integrase containing a continuous core and C-terminal domain. *Acta Crystallogr. D Biol. Crystallogr.* **55**, 1906-1910. [Abstract] [Full Text]
62. Yan, Y., Li, Y., Munshi, S., Sardana, V., Cole, J.L., Sardana, M., Steinkuehler, C., Tomei, L., De Francesco, R., Kuo, L.C. and Chen, Z. (1998) Complex of NS3 Protease and NS4A peptide of BK strain hepatitis C virus: a 2.2 Å resolution structure in a hexagonal crystal form. *Protein Sci.* **7**, 837-847.[Abstract] [Full Text]
63. Carroll, S.S., Cole, J.L., Viscount, T., Geib, J., Gehman, J. and Kuo, L.C. (1997) Activation of RNase L: Kinetic characterization. *J. Biol. Chem.* **272**, 19193-19198. [Abstract] [Full Text]
64. Cole, J.L., Carroll, S.S., Blue, E.S., Viscount, T. and Kuo, L.C. (1997) Activation of RNase L: Biophysical characterization. *J. Biol. Chem.* **272**, 19187-19192. [Abstract] [Full Text]
65. Cole, J.L. (1996) Approaches to high-volume screening assays of viral polymerases and related proteins. *Methods Enzymol.* **275**, 310-328. [Abstract] [Full Text]
66. Cole, J. L. (1996) Characterization of human cytomegalovirus protease dimerization by analytical sedimentation. *Biochemistry* **35**, 15601-15610. [Abstract] [Full Text]
67. Shin, W., Sundaram, U.M., Cole, J.L., Zhang, H.H., Hedman, B., Hodgson, K.O. and Solomon, E.I. (1996) Chemical and spectroscopic definition of the peroxide-level intermediate in the multicopper oxidases: relevance to the catalytic mechanism of dioxygen reduction to water. *J. Am. Chem. Soc.* **118**, 3202-3215.[Full Text]
68. Darke, P.L., Cole, J.L., Waxman, L., Hall, D.H., Sardana, M.K. and Kuo, L.C. (1996) Active human cytomegalovirus protease is a dimer. *J. Biol. Chem.* **271**, 7445-7449. [Abstract][Full Text]
69. Olsen, D.B., Benseler, F., Cole, J.L., Stahlhut, M.W., Demski, R.E., Darke, P.L. and Kuo, L.C. (1996) Elucidation of the mechanistic and kinetic properties of influenza endonuclease using chemically synthesized RNAs. *J. Biol. Chem.* **271**, 7435-7439. [Abstract][Full Text]

70. Cole, J.L., Carroll, S.S. and Kuo, L.C. (1996) Stoichiometry of 2,5-oligoadenylate-induced dimerization of ribonuclease L: A sedimentation equilibrium study. *J. Biol. Chem.* **271**, 3979-3981. [Abstract][Full Text]
71. Cole, J.L., Kuo, L.C and Olsen, D.B. (1995) Assay for influenza virus endonuclease using DNA polymerase extension of a specific cleavage product. *Anal. Biochem.***231**, 309-314. [Abstract][Full Length]
72. Cole, J.L., Gehman, J.D., Shafer, J.A. and Kuo, L.C. (1993) Solution oligomerization of the rev protein of HIV-1: implications for function. *Biochemistry* **32**, 11769-11775. [Abstract][Full Text]
73. Cole, J.L., Ballou, D.P. and Solomon, E. I. (1991) Spectroscopic characterization of the peroxide intermediate in the reduction of dioxygen catalyzed by the multicopper oxidases. *J. Am. Chem. Soc.* **113**, 8544-8546. [Full Text]
74. Cole, J.L., Avigliano, L., Morpurgo, L. and Solomon, E.I. (1991) Spectroscopic and chemical studies of the ascorbate oxidase trinuclear copper active site: Comparison to laccase. *J. Am. Chem. Soc.* **113**, 9080-9089. [Full Text]
75. Solomon, E.I., Cole, J.L. and Baldwin, M.J. (1990) Structure function correlations in copper clusters in proteins. *Pure Appl. Chem.* **62**, 1063-1066.
76. Cole, J.L., Clark, P.A. and Solomon, E.I. (1990) Spectroscopic and chemical studies of the laccase trinuclear copper active site: Geometric and electronic structure. *J. Am. Chem. Soc.* **112**, 9534-9548. [Full Text]
77. Cole, J.L., Tan, G.O., Yang, E.K., Hodgson, K.O. and Solomon, E.I. (1990) Reactivity of the laccase trinuclear copper active site with dioxygen: An X-ray absorption edge study. *J. Am. Chem. Soc.* **112**, 2243-2249. [Full Text]
78. Guiles, R.D., Yachandra, V.K., McDermott, A.E., Cole, J.L., Dexheimer, S.L., Britt, R.D., Sauer, K. and Klein, M.P. (1990) The S0 state of Photosystem II induced by hydroxylamine: Differences between the structure of the manganese complex in the S0 and S1 states determined by X-ray absorption spectroscopy. *Biochemistry* **29**, 486-496. [Abstract] [Full Text]
79. Guiles, R.D., Zimmermann, J.-L., McDermott, A.E., Yachandra, V.K., Cole, J.L., Dexheimer, S.L., Britt, R.D., Wieghardt, K., Bossek, U., Sauer, K. and Klein, M.P. (1990) The S3 state of Photosystem II: Difference between the structure of the manganese complex in the S2 and S3 states determined by X-ray absorption spectroscopy. *Biochemistry* **29**, 471-485. [Abstract] [Full Text]
80. Sauer, K., Guiles, R.D., McDermott, A.E., Cole, J.L., Yachandra, V.K., Dexheimer, S.L., Britt, R.D., Zimmermann, J.-L. and Klein, M.P. (1988) Spectroscopic studies of manganese involvement in photosynthetic oxygen-evolution. Chimica Scripta **28A**, 87-91.
81. McDermott, A.E., Yachandra, V.K., Guiles, R.D., Cole, J.L., Dexheimer, S.L., Britt, R.D., Sauer, K. and Klein, M.P. (1988) Characterization of the manganese oxygen-evolving complex and the iron-quinone acceptor complex of Photosystem II from a thermophilic cyanobacterium by electron paramagnetic resonance and X-ray absorption spectroscopy. *Biochemistry* **27**, 4021-4031. [Abstract] [Full Text]
82. Yachandra, V.K., Guiles, R.D., McDermott, A. Cole, J., Britt, R.D., Dexheimer, S.L., Sauer, K. and Klein, M.P. (1987) The state of manganese in the photosynthetic apparatus: an X-ray absorption spectroscopy study. in *Progress in Photosynthesis Research* (Ed. Biggins, J.) Martinus Nijhoff, Dordrecht, The Netherlands, Vol. 1, pp. 557-560.
83. Yachandra, V.K., Guiles, R.D., McDermott, A.E., Cole, J.L., Britt, R.D., Dexheimer, S.L., Sauer, K. and Klein, M.P. (1987) Comparison of the structure of the manganese complex in the S1 and S2 states of the photosynthetic oxygen-evolving complex: An X-ray absorption spectroscopy study. *Biochemistry* **26**, 5974-5981.[Abstract] [Full Text]
84. Cole, J.L., Yachandra, V.K., McDermott, A.E., Guiles, R.D., Dexheimer, S.L., Britt, R.D., Sauer, K. and Klein, M.P. (1987) Structure of the manganese complex of Photosystem II upon removal of the 33 kilodalton extrinsic protein: An X-ray absorption spectroscopy study. *Biochemistry* **26**, 5967-5973. [Abstract][Full Text]
85. Cole, J. and Sauer, K. (1987) The flash number dependence of EPR Signal II as a probe for charge accumulation in Photosystem II. *Biochem. Biophys. Acta* **891**, 40-48. [Full Text]
86. Cole, J., Yachandra, V.K., Guiles, R.D., McDermott, A.E., Britt, R.D., Dexheimer, S.L., Sauer, K. and Klein, M.P. (1987) Assignment of the g=4.1 EPR signal to manganese in the S2 state of the

photosynthetic oxygen-evolving complex: An X-ray absorption spectroscopy study. *Biochem. Biophys. Acta* **890**, 395-398. [Abstract][Full Text]
87. Yachandra, V.K., Guiles, R.D., McDermott, A., Britt, R.D., Cole, J., Dexheimer, S.L., Sauer, K. and Klein, M.P. (1986) The state of manganese in the photosynthetic apparatus determined by X-ray absorption spectroscopy. *Journal de Physique* **47-C8**, 1121-1128.
88. Cole, J., Boska, M., Blough, N.V. and Sauer, K. (1986) Reversible and irreversible effects of alkaline pH on Photosystem II electron transfer reactions. *Biochim. Biophys. Acta* **848**, 41-47. [Abstract][Full Text]
89. Mautner, H., Cole, J. and Belew, M. (1983) The labeling of an axonal membrane component with 4-(N-maleimido) benzyltrimethyl-ammonium, a reagent capable of affinity labeling the alpha-subunit of the nicotinic acetylcholine receptor. *Biochem. Biophys. Res. Commun.* **111**, 61-66.

Patents

1. Cole, J.L., Kuo, L.C., Olsen, D.B. and Benseler, F. Capped synthetic RNA, analogs and aptamers. U.S. Patent #6,369,208 issued April 9, 2002.
2. Benseler, F. Cole; J. L., Olsen; D. B. and Kuo, L.C. Capped synthetic RNA, analogs and aptamers. U.S. Patent #6,111,095 issued August 29, 2000.
3. Cole, J.L., Olsen D.B. and Kuo, L.C. DNA Polymerase extension assay. U.S. Patent #6,100,028 issued August 8, 2000.
4. Benseler, F. Cole; J. L., Olsen; D. B. and Kuo, L.C. Capped synthetic RNA, analogs and aptamers. U.S. Patent #5,861,501 issued January 19, 1999.
5. Cole, J.L., Olsen D.B. and Kuo, L.C. DNA Polymerase extension assay for influenza virus endonuclease. U.S. Patent #5,660,989 issued August 27, 1997.

Invited Lectures:

1. Reversible Associations in Structural and Molecular Biology, Melbourne, Australia. February 5, 1998.
2. 12th Symposium of the Protein Society, San Diego, California. July 25, 1998.
3. 2nd Annual Symposium on Solution Interactions of Macromolecules, Seattle, Washington. September 29, 1998
4. Analytical Ultracentrifugation Symposium, National Analytical Ultracentrifugation Center, Storrs, Connecticut. March 19, 1999.
5. Dept. of Biochemistry and Molecular Biology, New Jersey Medical School, Newark, New Jersey. May 10, 2001
6. Polymer Sciences Program, University of Connecticut, Storrs, Connecticut. March 8, 2002.
7. Department of Biochemistry, Robert Wood Johnson Medical School, Piscataway, New Jersey. May 8, 2003.
8. Department of Molecular, Microbial and Structural Biology, University of Connecticut Health Sciences Center. January 22, 2004.
9. Reversible Associations in Structural and Molecular Biology Gordon Conference, Ventura, CA. January 27, 2004.
10. Department of Biochemistry, University of Vermont, Burlington, Vermont. January 19, 2006.
11. 15th Annual analytical ultracentrifugation symposium, London, UK. April 7, 2006.
12. Center for Advanced Research in Biotechnology, Rockville, Maryland. September 25, 2006.
13. Department of Chemistry, Hunter College, New York. October 13, 2006.
14. Department of Chemistry, Boise State University, Idaho, June 1, 2007.
15. Department of Chemistry, University of Connecticut, Storrs, CT, February 18, 2009.
16. School of Biosciences, Nanyang Technical University, Singapore, April 17, 2009.
17. 18th International Symposium on Analytical Ultracentrifugation, Uppsala, Sweden. September 18, 2009.
18. Blue Stream Laboratories, Cambridge, MA. June 4, 2010.
19. Department of Biochemistry, Emory University, Atlanta, GA. September 2, 2010.
20. Department of Chemistry, Pennsylvania State University, College Park, PA. October 5, 2010.
21. Gibbs Conference on Biothermodynamics, Carbondale, IL. September 19, 2011.
22. Department of Medicinal Chemistry, University of Washington, Seattle, WA. August 13, 2012.
23. Department of Molecular Biology and Biophysics, University of Connecticut Health Center, Farmington, CT. April 17, 2014.
24. Gibbs Conference on Biothermodynamics, Carbondale, IL. September 26, 2016.
25. Department of Molecular Biology and Biochemistry, Wesleyan University, Middletown, CT. October 6, 2016.
26. New England Structure Symposium, University of Connecticut Health Center, Farmington, CT. October 14, 2016.

Meeting Presentations:

1. Cole, J.L. (2003) Analysis of Protein-Nucleic Acid Interactions by Sedimentation Equilibrium and Fluorescence Spectroscopy. Biophysical Society 47th annual meeting, San Antonio, TX. March 1-4, 2003.
2. Ucci, J.W. and Cole, J.L. (2003) An overlapping ligand model for nonspecific binding of protein kinase R to dsRNA. Biophysical Society 47th annual meeting, San Antonio, TX. March 1-4, 2003.
3. Ucci, J., Lemaire, P.A. and Cole, J.L. (2004) A new spin on protein- nucleic acid interactions: Probing the RNA-activated kinase PKR with analytical ultracentrifugation. Gordon research conference on reversible associations in structural and molecular biology. Ventura, CA. January 25-30, 2004.
4. Snyder, D., Lary, J.W., Chen, Y., Gollnick. P. and Cole, J.L. (2004) Interaction of the tryptophan RNA-binding attenuation protein (TRAP) with Anti-TRAP. Biophysical Society 48th annual meeting, Baltimore, MD. February 13-18, 2004.
5. Lemaire, P.A. and Cole, J.L. (2004) Expression and biophysical characterization of native human protein kinase R (PKR). Biophysical Society 48th annual meeting, Baltimore, MD. February 13-18, 2004.
6. Cole, J.L., Lemaire, P.A. and Lary, J.L. (2004) Mechanism of PKR activation: Dimerization and kinase activation in the absence of double-stranded RNA. 18th annual Gibbs Conference, Carbondale, IL. October 9-12, 2004.
7. Ucci, J.W., Kobayashi, Y., Choi, G., Alexandrescu, A. and Cole, J.L. (2005) Assembly of PKR on dsRNA probed by sedimentation equilibrium and NMR. 19th Annual symposium of the Protein Society, Boston, MA. July 30-August 3, 2005.
8. Ucci, J.W., Kobayashi, Y., Choi, G., Alexandrescu, A. and Cole, J.L. (2005) Assembly of PKR on dsRNA probed by sedimentation equilibrium and NMR. Biophysical Society 50th annual meeting, Salt Lake City, UT. February 20-22, 2006.
9. Lemaire, P.A., Ucci, J.W., Kobayashi, Y., Anderson, E., Lary, W., Choi, G., Alexandrescu, A.A. and Cole, J.L. (2006) Activation of Protein Kinase R by Dimerization and Binding to dsRNA. 15th international symposium on analytical ultracentrifugation, London, England. April 5-7, 2006
10. Anderson, E., Lary, J.W., Chen, Y., Gollnick, P. and Cole, J.L. (2007) Analysis of the interaction of the Trp RNA-binding attenuation protein (TRAP) with anti-TRAP by multisignal sedimentation velocity. 16th international symposium on analytical ultracentrifugation, Hannover, Germany. February 27- March 3, 2007.
11. Lemaire, P.A., Tessmer, I., Erie, D.A. and Cole, J.L. (2007) Unactivated PKR Exists in an Open Conformation Capable of Binding Nucleotides. Biophysical Society 51th annual meeting, Baltimore, MD. March 3-6, 2007.
12. Anderson, E., Lary, J.W., Chen, Y., Gollnick, P. and Cole, J.L. (2007) Analysis of the interaction of the Trp RNA-binding attenuation protein (TRAP) with anti-TRAP by multisignal sedimentation velocity. Biophysical Society 51st annual meeting, Baltimore, MD. March 3-6, 2007.
13. Cole, J.L., Lemaire, P.A. and Lary, J.L. (2007) Mechanism of PKR activation by dsRNA. 21st annual Gibbs Conference, Carbondale, IL. September 29-October 2, 2007.
14. Cole, J.L., Lemaire, P.A. and Lary, J.L. (2008) Mechanism of PKR activation by dsRNA. Biophysical Society 52nd annual meeting, Long Beach, CA. February 2-6, 2008.
15. Anderson, E., VanOudenhove, J. and Cole, J.L. (2008) Thermodynamic and structural analysis of domain interactions in PKR. 22nd annual Gibbs Conference, Carbondale, IL. October 4-7, 2008.
16. Quartararo, C., Anderson, E., Brown, R, Shi, Y. Yao, X. and Cole, J.L. (2009) Analysis of monomeric and dimeric phosphorylated forms of PKR. Biophysical Society 53rd annual meeting, Boston, MA. February 28- March 4, 2009.

17. Anderson, E., VanOudenhove, J., Krueger, S. and Cole, J.L. (2008) Thermodynamic and structural analysis of domain interactions in PKR. Biophysical Society 53rd annual meeting, Boston, MA. February 28- March 4, 2009.
18. Lemaire, P.A., VanOudenhove, J., Wong, C.J., Launer-Felty, K., Anderson, E., Lary, J.W., Heinicke, L.A., Conn, G., Krueger, S. and Cole, J.L. (2009) Mechanism of activation of the antiviral kinase PKR. 18th international symposium on analytical ultracentrifugation, Uppsala, Sweden. September 16-19, 2009.
19. Wong, C.J., Heinicke, L.A., Launer-Felty, K.A., Lary, J.W., Conn, G.L., Bevilacqua, P.A., Cole, J.L. (2010) Regulation of PKR by viral RNAs. Biophysical Society 54th annual meeting, San Francisco, CA. February 20-24, 2010.
20. Wowor, A. J., Yu, D., Kendall, D.A. and Cole, J.L. (2010) Linkage equilibrium analysis of SecA dimerization. 24th Annual Gibbs Conference, Carbondale, IL. September 25-28, 2010.
21. Wong, C.J. and Cole, J.L. (2010) Activation of PKR by Stem-loop RNAs requires flanking ssRNA arms. 24th Annual Gibbs Conference, Carbondale, IL. September 25-28, 2010.
22. Anderson, E., Pierre-Louis, W., Wong, C.J., Lary, J.W. and Cole, J.L. (2010) Heparin activates PKR by inducing dimerization. 24th Annual Gibbs Conference, Carbondale, IL. September 25-28, 2010.
23. Wowor, A. J., Yu, D., Kendall, D.A. and Cole, J.L. (2011) Linkage between SecA dimerization and ligand binding. Biophysical Society 55th annual meeting, Baltimore, MD. March 5-9, 2011.
24. Wong, C.J. and Cole, J.L. (2011) Activation of PKR by Stem-loop RNAs requires flanking ssRNA arms. Biophysical Society 55th annual meeting, Baltimore, MD. March 5-9, 2011.
25. Anderson, E., Pierre-Louis, W., Wong, C.J., Lary, J.W. and Cole, J.L. (2011) Heparin activates PKR by inducing dimerization. Biophysical Society 55th annual meeting, Baltimore, MD. March 5-9, 2011.
26. Launer-Felty, K., Wong, C.J., Wahid, A.M., Conn, G.L. and Cole, J.L. (2011) Inhibition of PKR by Adenovirus-associated RNA I. Biophysical Society 55th annual meeting, Baltimore, MD. March 5-9, 2011.
27. Husain, B., Mukerji, I. and Cole, J.L. (2011) Analysis of PKR binding to dsRNA using fluorescence-detected analytical ultracentrifugation. Biophysical Society 55th annual meeting, Baltimore, MD. March 5-9, 2011.
28. Cole, J.L. (2011) Analysis of macromolecular interactions in drug discovery research. 25th Annual Gibbs Conference, Carbondale, IL. September 17-20, 2011.
29. Husain, B., Mukerji, I. and Cole, J.L. (2011) Analysis of PKR binding to dsRNA using fluorescence-detected analytical ultracentrifugation. 25th Annual Gibbs Conference, Carbondale, IL. September 17-20, 2011.
30. Mayo, C.B. and Cole, J.L. (2011) Characterization of PACT and its interaction with PKR. 25th Annual Gibbs Conference, Carbondale, IL. September 17-20, 2011.
31. Launer-Felty, K., Wong, C.J., Wahid, A.M., Conn, G.L. and Cole, J.L. (2011) Inhibition of PKR by Adenovirus-associated RNA I. 25th Annual Gibbs Conference, Carbondale, IL. September 17-20, 2011.
32. Wowor, A.J., Auclair, S.M., Yu, D., Zhao, P., Kendall, D.A., Cole, J.L. (2011) The dimer interface of SecA. 25th Annual Gibbs Conference, Carbondale, IL. September 17-20, 2011.
33. Wowor, A.J., Auclair, S.M., Yu, D., Zhao, P., Kendall, D.A., Cole, J.L. (2012) The dimer interface of SecA. Biophysical Society 56th annual meeting, San Diego, CA. February 25-29, 2012.
34. Cole, J.L. (2012) HeteroAnalysis. 20th Annual Analytical Ultracentrifugation Meeting, San Antonio, TX. March 25-30, 2012.
35. Mayo, C.B. and Cole, J.L. (2012) Activation of PKR by stem-loop RNAs with flanking ssRNA tails. 26th Annual Gibbs Conference, Carbondale, IL. September 22-25, 2012.

36. Lary, J.W., Husain, B. and Cole, J.L. (2012) How to collect high quality sedimentation velocity data using fluorescence detection. 26th Annual Gibbs Conference, Carbondale, IL. September 22-25, 2012.
37. Husain, B. and Cole, J.L. (2013) Bringing PKR monomers together: dsRNA-induced activation across a barrier. 26th Annual Gibbs Conference, Carbondale, IL. September 22-25, 2012.
38. Husain, B. and Cole, J.L. (2013) Bringing PKR monomers together: dsRNA-induced activation across a barrier. Biophysical Society 57th annual meeting, Philadephia, PA. February 2-6, 2013.
39. Wowor, A.J., Auclair, S.M., Yu, D., Zhao, P., Kendall, D.A., Cole, J.L. (2013) Elucidating the dimer interface of SecA. Biophysical Society 57th annual meeting, Philadephia, PA. February 2-6, 2013.
40. Lyons, D.F., Lary, J.W., Husain, B., Correia, J.J. and Cole J.L. (2013) Are fluorescence-detected sedimentation velocity data reliable? 20th Annual Analytical Ultracentrifugation Meeting, Atami, Japan, September 26-28, 2013.
41. Mayo, C.B. and Cole, J.L. (2012) Activation of PKR by stem-loop RNAs with flanking ssRNA tails. Biophysical Society 58th annual meeting, San Francisco, CA. February 15-19, 2014.
42. Wowor, A.J., Yan, Y., Auclair, S.M., Yu, D., Zhang, J., May, E.R., Gross, M.L., Kendall, D.A., Cole, J.L. (2014) The SecA dimer interface. Biophysical Society 58th annual meeting, San Francisco, CA. February 15-19, 2014.
43. Husain, B., Bruno, M. and Cole, J.L. (2014) Analysis of PKR Dimerization by Fluorescence Resonance Energy Transfer. Biophysical Society 58th annual meeting, San Francisco, CA. February 15-19, 2014.
44. Launer-Felty, K., Wong, C.J. and Cole, J.L. (2014) Structure of adenovirus virus associated RNA-I. 28th Annual Gibbs Conference, Carbondale, IL. September 20-23, 2014.
45. Mayo, C.B., Lopez, P. and Cole, J.L. (2015) Activation of PKR by stem-loop RNAs with flanking ssRNA tails. Biophysical Society 59th annual meeting, Baltimore, MD. February 7-11, 2015.
46. Husain, B., Bruno, M. Angeliadis, M. and Cole, J.L. (2015) Factors that influence PKR dimerization and activation. Biophysical Society 59th annual meeting, Baltimore, MD. February 7-11, 2015.
47. Mouser, D. and Cole, J.L. (2015) Assembly of the RIG-I 2CARD signaling complex. Biophysical Society 59th annual meeting, Baltimore, MD. February 7-11, 2015.
48. Zerbe, C. and Cole, J.L. (2015) Characterization of the MDA5 2CARD signaling complex. Biophysical Society 59th annual meeting, Baltimore, MD. February 7-11, 2015.
49. Launer-Felty, K., Wong, C.J. and Cole, J.L. (2015) Structure of adenovirus virus associated RNA-I. Biophysical Society 59th annual meeting, Baltimore, MD. February 7-11, 2015.
50. Husain, B., Mayo, C. and Cole, J.L. (2015) RNA binding induces formation of active and inactive PKR dimers. Gordon Research Conference: Nucleic Acids. Biddeford, ME. May 31-June 5, 2015.
51. Husain, B., Hesler, S. and Cole, J.L. (2016) Regulation of PKR by RNA: Formation of active and inactive dimers, Biophysical Society 60th annual meeting, Los Angeles, CA. February 27-March 3, 2016.
52. Zerbe, C., Launer-Felty, K. and Cole, J.L. (2016). Interaction of PKR with viral RNA inhibitors. 30th Annual Gibbs Conference on Biothermodynamics, Carbondale, IL. September 24-27, 2016.
53. Mouser, D., Zerbe, C. and Cole, J.L. (2016). Interaction of RIG-I-like Receptors with Polyubiquitin Chains. 30th Annual Gibbs Conference on Biothermodynamics, Carbondale, IL. September 24-27, 2016.
54. Mayo, C. B. and Cole, J.L. (2017). Interaction of PKR with Single-Stranded RNA. Biophysical Society 61st annual meeting, New Orleans, LA. February 11-15, 2017.

55. Mayo, C. B., Erlandsen, H., Feinstein, A., May, E. R. and Cole, J. L. (2017). Mechanism for activation of the antiviral kinase PKR. FASEB SRC: Protein kinases and protein phosphorylation. Cambridge, UK. August 6-11, 2017.
56. Mayo, C. B., Erlandsen, H., Feinstein, A., May, E. R. and Cole, J. L. (2017). Mechanism for activation of the antiviral kinase PKR. 31st Annual Gibbs Conference on Biothermodynamics. Carbondale, Ill. September 23-26, 2017.
57. Hesler, S., Husain, B., Angeliadis, M. and Cole, J.L. (2018) Role of the second dsRNA binding domain in activation. 32nd Annual Gibbs Conference on Biothermodynamics. Carbondale, Ill. October 6-9, 2018.
58. Zerbe, C., Launer-Felty, K., Godin, M. and Cole, J.L. (2018) Interaction of PKR with viral RNA "inhibitors." 32nd Annual Gibbs Conference on Biothermodynamics. Carbondale, Ill. October 6-9, 2018.
59. Hesler, S., Husain, B., Angeliadis, M. and Cole, J.L. (2019) RNA binding mode regulates PKR activation. Biophysical Society 63rd Annual Meeting, Baltimore, MD. March 2-6, 2019.
60. Hesler, S., Godoy, V., Gaszi, J., Anderson, E. and Cole, J.L. (2020) Activation of PKR by small molecules. Biophysical Society 64th Annual Meeting. San Diego, CA. February 15-19, 2020.