

Curriculum Vita

Eva Y. Chi, Ph.D.

Associate Professor and Regents' Lecturer
Department of Chemical and Biological Engineering
Center for Biomedical Engineering
University of New Mexico
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EDUCATION

- Ph.D. Chemical Engineering, University of Colorado, Boulder, CO (2004)
Doctoral Dissertation: "Protein Aggregation in Aqueous Solution – Mechanism, Thermodynamics, and Kinetics", *Advisors:* Theodore W. Randolph and John F. Carpenter
- M.S. Chemical Engineering, University of Colorado, Boulder, CO (2001)
- B.S. Chemistry and Chemical Engineering, University of California, Berkeley, CA (1999)

ACADEMIC APPOINTMENTS

- **Associate Chair and Director of Undergraduate Program** 2015 – present
Department of Chemical and Biological Engineering, University of New Mexico, Albuquerque, NM
- **Associate Professor** 2014 – present
Department of Chemical and Biological Engineering and the Center for Biomedical Engineering, University of New Mexico, Albuquerque, NM
- **Assistant Professor** 2008 – 2014
Department of Chemical and Nuclear Engineering and the Center for Biomedical Engineering, University of New Mexico, Albuquerque, NM
- **Postdoctoral Research Fellow** 2004 – 2008
Department of Chemistry, Institute for Biophysical Dynamics, and the James Franck Institute, The University of Chicago, Chicago, IL

AWARDS AND HONORS

University of New Mexico: Women in STEM (2017); UNM School of Engineering Regents' Lecturer (2016 – 2019); University of New Mexico School of Engineering Junior Faculty Research Award (2014); NSF CAREER Award (2012); AVS Biomaterials Interface Division Young Investigator Award (2010); Alzheimer's Association New Investigator Research Grant Award (2009); Oak Ridge Associated Universities, Ralph Powe Junior Faculty Enhancement Award (2009)

University of Chicago and University of Colorado: International Institute for Complex Adaptive Matter Junior Scientist Travel Award (2007); Institute for Pure and Applied Mathematics Workshop Travel Award (2006); NIH Ruth L. Kirschstein National Research Service Award (2004 – 2007); American Institute of Chemists Graduate Award (2004); NIH Leadership Training in Pharmaceutical Technology Fellowship (2003); NSF Graduate Research Fellowship (2001 – 2004); Department of Education GAANN Macromolecular Science and Engineering Fellowship (2000 – 2004); Student Annual Research Symposium Award (2004); Graduate Interdisciplinary Certificate in Biotechnology, Interdisciplinary Biotechnology Program (2003); Professor Serge N. Timasheff Award – Excellence in Graduate Studies in the Field of Protein Stability Research

PUBLICATIONS

** Peer reviewed publications to date

2757 total citations; h-index = 25; i10-index = 30 (Google Scholar as of 10/18/2017)

Refereed Journal Publications

1. Danabedia PL, Creyer M, Monge FA, Schanze KS, **Chi EY**, Whitten DG*, Detergent induced self-assembly and controllable photosensitizer activity of diester phenylene ethynyls (2017), *Proc Natl Acad Sci USA*; **114**(28):7278-7282. doi: 10.1073/pnas.1702513114. PMID: 28642346
2. Donabedian PL, Evanoff M, Monge FA, Whitten DG, **Chi EY***, Substituent, charge, and size effects on the fluorogenic performance of amyloid ligands: a small library screening study (2017), *ACS Omega*, **2** (7), pp 3192–3200. DOI: 10.1021/acsomega.7b00231
3. Martin TD, Hill EH, Whitten DG, **Chi EY**, DG Evans, Oligomeric conjugated polyelectrolytes display site-preferential binding to an MS2 virial capsid (2016) *Langmuir*. 32(47):12542-12551.
4. Thapa A, Jett SD, Chi EY, Curcumin Attenuates Amyloid- β Aggregate Toxicity and Modulates Amyloid- β Aggregation Pathway (2016) *ACS Chemical Neuroscience*. **7**(1), pp56-68, DOI: 10.1021/acscemneuro.5b00214
5. Donabedian PL, Pham TK, Whitten DG*, **Chi EY***, Oligo (p-phenylene ethynylene) Electrolytes: A Novel Molecular Scaffold for Optical Tracking of Amyloids (2015) *ACS Chemical Neuroscience* **6** (9): 1526-1535. doi: 10.1021/acscemneuro.5b00086. Epub 2015 Jul 8. PMID: 26114931
6. Majewski J, André S, Jones E, **Chi E**, Gabius HJ*, X-ray reflectivity and grazing incidence diffraction studies of interaction between human adhesion/growth-regulatory galectin-1 and DPPE—GM1 lipid monolayer at an air/water interface (2015) *Biochemistry (Moscow)* **80** (7):943-956
7. Thapa A, Givler BC, Peña KDL, Soliz G, Moreno HA, López GP, **Chi EY***, Membrane-mediated neuroprotection by curcumin from amyloid- β peptide induced toxicity (2013) *Langmuir*, **29**(37):11713-11723. doi: 10.1021/la4020459. PMID: 24004419
8. *Invited Article*: Wang Y, **Chi EY**, Natvig DO, Schanze KS, Whitten DG*, Antimicrobial activity of cationic conjugated polyelectrolytes and oligomers against *Saccharomyces cerevisiae* vegetative cell and spore. (2013) *ACS Appl. Mater. Interfaces*. **5**(11): 4555-61. PMID: 23510401
9. Wang Y, Jett SD, Crum J, Schanze KS, **Chi EY***, Whitten DG*. Understanding the dark and light-enhanced bactericidal action of cationic conjugated polyelectrolytes and oligomers. (2013) *Langmuir*. **29**(2):781-92. PMID: 23240979
10. Thapa A, Han W, Simons RH, Chilkoti A, **Chi EY**, López GP*. Effect of detergents on the thermal behavior of elastin-like polypeptides. (2013) *Biopolymers*. 2013 **99**(1):55-62. PMID: 23097230
11. Jones EM, Dubey M, Camp PJ^{UG}, Vernon BC^{UG}, Biernat J, Mandelkow E, Majewski J, **Chi EY***. Interaction of tau protein with model lipid membranes induces tau structural compaction and membrane disruption. (2012) *Biochemistry*. **51**(12):2539-50.
12. Wang Y, Corbitt TS, Jett SD, Tang Y, Schanze KS, **Chi EY**, Whitten DG*. Direct visualization of bactericidal action of cationic conjugated polyelectrolytes and oligomers. (2012) *Langmuir*. **28**(1):65-70.
13. Wang Y, **Chi EY***, Schanze KS*, Whitten DG*, Membrane Activity of Antimicrobial Phenylene Ethynylene Based Polymers and Oligomers, *Soft Matter*, 2012, **8**:8547–8558.
14. Wang Y, Jones EM, Tang Y, Ji E, Lopez GP, **Chi EY***, Schanze KS, Whitten DG*. Effect of polymer chain length on membrane perturbation activity of cationic phenylene ethynylene oligomers and polymers. (2011) *Langmuir*. 27(17):10770-5. PMID: 21740017
15. Pocivavsek L, Gavrillov K, Cao KD, **Chi EY**, Li D, Lin B, Meron M, Majewski J, Lee KY*. Glycerol-induced membrane stiffening: the role of viscous fluid adlayers. (2011) *Biophysical Journal*. 101(1):118-27. PMID: 21723821
16. *Invited feature article*: Wang Y, Zhou Z, Zhu J, Canady TD, **Chi EY***, Schanze KS, Whitten DG.* The dark antimicrobial mechanism of cationic phenylene ethynylene polymers and oligomers against *Escherichia coli*. (2011) *Polymers*. **3**:1199-1214.

17. Wang Y, Canady TD, Zhou Z, Tang Y, Price DN, Bear DG, **Chi EY***, Schanze KS, Whitten DG*. Cationic phenylene ethynylene polymers and oligomers exhibit efficient antiviral activity. (2011) *ACS Applied Materials and Interfaces*. 2011 Jul;3(7):2209-14. PMID: 21667949
18. Szilvay GR, Brocato S, Ivnitski D, Li C, De La Iglesia P, Lau C, **Chi EY**, Werner-Washburne M, Banta S, Atanassov P*. Engineering of a redox protein for DNA-directed assembly. (2011) *Chemical Communication* (Camb). 2011 Jul 14;47(26):7464-6. PMID: 21541425
19. Thapa A, Woo ER, **Chi EY**, Sharoar MG, Jin HG, Shin SY, Park IS*. Biflavonoids are superior to monoflavonoids in inhibiting amyloid- β toxicity and fibrillogenesis via accumulation of nontoxic oligomer-like structures. (2011) *Biochemistry*. **50**(13):2445-55. PMID: 21322641
20. Wang Y, Tang Y, Zhou Z, Ji E, Lopez GP, **Chi EY***, Schanze KS, Whitten DG*. Membrane perturbation activity of cationic phenylene ethynylene oligomers and polymers: selectivity against model bacterial and mammalian membranes. (2010) *Langmuir*, **26**:12509-12514.
21. **Chi EY**, Winans A, Frey SL, Lam KLH, Majewski J, Wu G, Kjaer K, Lee KYC*, Air/water interface induced folding and self assembly of amyloid-beta peptide seeds fibrillogenesis. (2010) *Biophysical Journal*, **98**: 2299-2308.
22. Ding L, **Chi EY***, Schanze KS, Lopez GP, Whitten DG*, Insight into the mechanism of antimicrobial conjugated polyelectrolytes: lipid head-group charge and membrane fluidity effects. (2009) *Langmuir*, **26**:5544-5550.
23. Ding L, **Chi EY**, Chemburu S, Ji E, Schanze KS, Lopez GP, Whitten DG*, Insight into the mechanism of antimicrobial poly(phenylene ethynylene) polyelectrolytes: interactions with phosphatidylglycerol lipid membranes, (2009) *Langmuir*, **25** (24):13742–13751.
24. Ratajczak MK, **Chi EY**, Frey SL, Cao KD, Luther LM, Kjaer K, Majewski J, Lee KYL*, Ordered nanoclusters in lipid-cholesterol membranes, (2009) *Physical Review Letters*, **103**, 028103.
25. Stenger PC, Wu G, Miller CE, **Chi EY**, Frey SL, Lee KYC, Majewski J, Kjaer K, Zasadzinski JA*, X-Ray diffraction and reflectivity study of the competitive adsorption of lung surfactant and albumin, (2009) *Biophysical Journal*, **97**(3): 777-86.
26. Frey SL, **Chi EY**, Arratia C^{UG}, Lee KYC*, Condensing and fluidizing effects of Ganglioside G_{M1} on phospholipid films, (2008) *Biophysical Journal*, **94**: 3047-3064.
27. **Chi EY**, Ege C, Winans A^{UG}, Majewski J, Wu G, Kjaer K, Lee KYC*, Lipid membrane templates the ordering and induces the fibrillogenesis of Alzheimer's disease amyloid-beta peptide, (2008) *Proteins*, **72**: 1-24.
28. **Chi EY**, Frey SL, Lee KYC*, Ganglioside G_{M1}-mediated amyloid-beta fibrillogenesis and membrane disruption, (2007) *Biochemistry*, **46**: 1913-24.
29. **Chi EY**, Kendrick BS, Carpenter JF, Randolph TW*, Population balance modeling of aggregation kinetics of recombinant human interleukin-1 receptor antagonist, (2005) *Journal of Pharmaceutical Sciences*, **94**: 2735-2748.
30. **Chi EY**, Weickmann J, Carpenter JF, Manning MC, Randolph TW*, Heterogeneous nucleation controlled intermittent aggregation of recombinant human platelet-activating factor acetylhydrolase in pharmaceutical formulation, (2005) *Journal of Pharmaceutical Sciences*, **94**: 256-274.
31. **Chi EY**, Krishnan S, Kendrick BS, Chang BS, Carpenter JF, Randolph TW*, Roles of conformational and colloidal stability in the aggregation of recombinant human granulocyte colony stimulating factor, (2003) *Protein Science*, **12**, 903-913.
32. Krishnan S, **Chi EY**, Wood SJ, Kendrick BS, Li C, Garzon-Rodriguez W, Wypych J, Randolph TW, Narhi L, Biere AL, Citron M, Carpenter JF*, Oxidative dimer formation is the critical rate-limiting step for Parkinson's disease alpha-synuclein fibrillogenesis, (2003) *Biochemistry*, **42**, 829-837.
33. Krishnan S, **Chi EY**, Webb JN, Chang BS, Shan D, Goldenberg M, Manning MC, Randolph TW, Carpenter JF*, Aggregation of granulocyte colony stimulating factor under physiological conditions: characterization and thermodynamic inhibition (2002) *Biochemistry*, **41**, 6422-6431.
34. Kim YS, Cape SP, **Chi EY**, Raffin R, Wilkins-Stevens P, Stevens FJ, Manning MC, Randolph TW, Solomon A, Carpenter JF*, Counteracting effects of renal solutes on amyloid fibril formation by immunoglobulin light chains (2001) *Journal of Biological Chemistry*, **276**, 1626-1633.

Invited Reviews

35. *Invited Feature Article*: Wang Y, Chi EY*, Schanze KS, Whitten DG*, When worlds collide: interactions at the interface between biological systems and synthetic cationic polyelectrolytes and oligomers. (2013) *Langmuir*, 29(34): 10635-47.
36. Wang Y, Chi EY*, Schanze KS*, Whitten DG*, Membrane activity of antimicrobial phenylene ethynylene based polymers and oligomers (2012) *Soft Matter*, 8(33), 8547 – 8558.
37. Chi EY, Krishnan S, Randolph TW, Carpenter JF, Physical stability of proteins in aqueous solution: mechanism and driving forces in non-native protein aggregation, (2003) *Pharmaceutical Research*, 20, 1325-1336.

Book Chapters

38. Chi EY*, Excipients Used In Biotechnology Products, *Excipients for Biologics*, Editor Otilia Koo, John Wiley, 2016
39. Thapa A, Chi EY*, “Biflavonoids as potential small molecule therapeutics for Alzheimer’s Disease” in Natural Compounds as Therapeutic Agents for Amyloidogenic Diseases, by Springer-Verlag in Advances in Experimental Medicine and Biology Book Series. Editor: Neville Vassallo, 2015
40. Chi EY, Carpenter JF, Randolph TW*, Thermodynamics of the physical stability of protein solutions, in Biothermodynamics: The Role of Thermodynamics in Biochemical Engineering, Editors Urs von Stockar and Luuk A. M. van der Wielen, EPFL Press, (2013). ISBN 9781466582163
41. Corbitt TS, Ji E, Wang Y, Parthasarathy A, Wilde KN, Hill EH, Dascier D, Canavan HC, Chi EY, Schanze KS, Whitten DG*, Conjugated polyelectrolyte-based biocide applications. Conjugated Polyelectrolytes. First Edition. Editors: Liu B and GC Bazan GC. Wiley-VCH Verlag GmbH & Co. KGaA (2012). DOI: 10.1002/9783527655700.ch8

Refereed Conference Papers

42. Donabedian P, Maphis N, Jiang S, Bhaskar K, Whitten DG, Chi EY, Binding-Activated Superradiant Probes for Amyloid in Solution and Tissue, *Biophysical Journal* 110 (3), 554a, 2016
43. Whitten DG, Hill EH, Donabedian P, Evans DG, Chi E, Biosensing with charged conjugated phenylene ethynylene polymers and oligomers, ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY 247, 2014
44. Pocivavsek L, Cao KD, Gavrilov K, Chi EY, Lin D, Lin B, Meron M, Majewski J, Lee KYC, Tuning Membrane Mechanics with Glycerol Adlayers, *Biophysical Society 56th Annual Meeting*, San Diego, CA, February 25-29, 2012; *Biophysical Journal*, 102(3), 647a
45. Whitten DG, Wang Y, Zhou Z, Tang Y, Zhu J, Canady TD, Graves SW, Chi EY, Schanze KS, Dark antimicrobial activity of cationic conjugated phenylene ethynylene polymers and oligomers against E. coli and other pathogens, 242nd American Chemical Society National Meeting, Denver, CO, August 28 – September 1, 2011; *Abstracts of Papers of the American Chemical Society*, 242
46. Szilvay GR, Li C, Brocato S, Lau C, Chi EY, Atanassov P, Banta S, Laccase fusion protein engineered for site-specific immobilization on carbon nanotube modified electrodes, 239th American Chemical Society National Meeting, San Francisco, CA, March 21-25, 2010; *Abstracts of Papers of the American Chemical Society*, 239
47. Brocato S, Lau C, Chi EY, Werner-Washburne M, Atanassov P, Szilvay G, Li C, Banta S, DNA-Directed Assembly of Enzymes and Nanomaterials: Small Laccase-Carbon Nanotube Supramolecular Assemblies, 217th ESC (Electrochemical Science and Technology) Meeting, Vancouver, Canada, April 25 – 30, 2011; ECS Meeting Abstract MA2010-01 16
48. Camp P, Biernat J, Mandelkow E, Majewski J, Chi EY, Lipid-Membrane Mediated Tau Misfolding and Aggregation (2010), *Biophysical Society 54th Annual Meeting*, San Francisco, CA, February 20-24, 2010; *Biophysical Journal*, 98(3), 239a – 240a

49. Svoboda V, Wei J, Onwere C, Singhal S, Tian Y, **Chi EY**, Atanassov P, Glucose-air Enzymatic Fuel Cell for Portable Electronics Applications, 215th ESC (Electrochemical Science and Technology) Meeting, San Francisco, CA, May 24 – 29, 2009; ECS Meeting Abstract MA2009-02 2911
50. Lee KYC, Ratajczak M, Frey SL, **Chi EY**, Cao K, Hawk L, Majewski J, Kjaer K, Evidence of nanoclusters in phospholipid/cholesterol mixtures, 237th American Chemical Society National meeting, Salt Lake City, UT, March 22-26, 2009; *Abstracts of Papers of the American Chemical Society*, **237**
51. Stenger PC, Wu G, **Chi EY**, Frey SL, Lee KYC, Majewski J, Competitive Adsorption of Lung Surfactant and Serum Proteins at the Air-Liquid Interface: A Grazing Incidence X-Ray Diffraction Study, 2008 Material Research Society Fall Meeting, Boston, MA, December 1-5, 2008; *Proceedings of the Materials Research Society*. 1027E.
52. Winans AM, **Chi EY**, Lee KYC, PRES 36-Anionic phosphatidylglycerol lipid membrane templates amyloid-beta fibrillogenesis (2008), 238th American Chemical Society National Meeting, Washington, DC, August 16-20, 2009; *Abstracts of Papers of the American Chemical Society*, **237**
53. **Chi EY**, Winans A, Frey SL, Majewski J, Kjaer K, Lee KYC, Air-Water Interface Induced Ordering And Fibrillogenesis Of Alzheimer's Disease Amyloid-Beta Peptide, American Institute of Chemical Engineers Annual Meeting, Salt Lake City, UT, November 4-9, 2007
54. **Chi EY**, Frey SL, Winans AM, Majeswki J, Kjaer K, Lee KYC, Cell membrane-mediated amyloid-beta fibrillogenesis and membrane disruption (2007), 233rd American Chemical Society National Meeting, Chicago, IL, March 25-29, 2007, *Abstracts of Papers of the American Chemical Society*, **233**
55. Danauskas SM, **Chi EY**, Lee KYC, Probing the interaction of A beta 40 with phospholipid/dihydrocholesterol mixed monolayers, 233rd American Chemical Society National Meeting, Chicago, IL, March 25-29, 2007, *American Chemical Society*, **233**
56. Winans AM, **Chi EY**, Lee KYC, Beta-sheet templating of amyloid-beta protein by anionic phosphatidylglycerol membranes, 233rd American Chemical Society National Meeting, Chicago, IL, March 25-29, 2007, *American Chemical Society*, **233**
57. Ratajczak MK, Frey SL, **Chi EY**, Ege C, Steck TL, Lange Y, Majewski J, Kjaer K, Lee KYC, Evidence for condensed lipid/cholesterol complexes in lipid membranes. APS March Meeting, Denver, CO, March 5-9, 2007, *Bulletin of the American Physical Society*, **52:1**
58. Pocivavsek L, Frey S, **Chi EY**, Waring A, Lee KYC, Lung surfactant collapse on viscous subphases, Biophysical Society 51th Annual Meeting, Baltimore, MD, March 3-7, 2007, *Biophysical Society*, 235A-236A
59. **Chi EY**, Frey SL, Lee, KYC, Cell membrane ganglioside GM1-Mediated amyloid-beta fibrillogenesis and membrane disruption, Biophysical Society 51th Annual Meeting, Baltimore, MD, March 3-7, 2007, *Biophysical Society*, 220A – 220A
60. **Chi EY**, Frey, SL; Lee, KYC; BIOT 200-Ganglioside GM1 mediated amyloid-beta fibril formation and membrane disruption, 232nd American Chemical Society National Meeting, San Francisco, CA, September 10-14, 2006, *Abstracts of Papers of the American Chemical Society*, **232**
61. **Chi EY**, Ege C, Frey SL, Lee KYC, Protein aggregation at interfaces - interface induced amyloid-beta fibril formation, American Institute of Chemical Engineers Annual Meeting, San Francisco, CA, November 12-17, 2006
62. **Chi EY**, Frey SL, Lee KYC, Cell membrane ganglioside G M1 Mediated Amyloid-Beta Fibril Formation and Membrane Disruption, American Institute of Chemical Engineers Annual Meeting, San Francisco, CA, November 12-17, 2006
63. **Chi EY**, Ege C, Lee KYC, Cell Membrane-Mediated Amyloid-Beta Fibrillogenesis, American Institute of Chemical Engineers Annual Meeting, Cincinnati, OH, October 30 – November 4, 2005
64. Randolph TW, **Chi EY**, Krishnan S, Kendrick BS, Carpenter JF, Protein aggregation conformational stability and colloidal stability, 224th American Chemical Society National Meeting, Boston, MA, August 19-22, 2002, *Abstracts of Papers of the American Chemical Society*, **224**, U225 – U225

Other Scholarly Publication

65. *Invited feature article* for Formulation Design and Development (FDD) TechCorner of the American Association of Pharmaceutical Scientists, May 2012. **Chi EY***, “Excipients and their Effects on the Quality of Biologics”

INVITED LECTURES, SEMINARS, AND PRESENTATIONS

[§]Denotes presenting author

1. **Chi EY**, “Development of novel theranostics for protein misfolding diseases”, Department of Chemistry and Chemical Biology Seminar, University of New Mexico, 4/2017
2. **Chi EY**, “Development of novel theranostics for protein misfolding diseases”, Applied Department of Chemistry and Chemical Biology Seminar, University of New Mexico, 2/2017
3. **Chi EY[§]**, “Tau aggregation and detection in amyloid diseases”, BRaIN Seminar Series, Health Sciences Center, University of New Mexico, 11/2015
4. J Majewski[§], E Jones, A Junghans, J Biernat, E Mandelkov, **E Chi**, “Interactions of Alzheimer’s Related Tau Proteins with Lipid Membranes (Neutron and X-ray Interfacial Studies)”, Ostwald Kolloquium, Max Planck Institute for Colloids and Interfaces, Potsdam-Golm, Germany, 09/2015
5. **Chi EY[§]**, “Structure and Dynamics of Functional Polyampholytes”, School of Chemistry and Chemical Engineering, Shanghai Jiao Tong University, Shanghai, China, 05/2015
6. **Chi EY[§]**, “Protein misfolding in neurodegenerative diseases”, Department of Chemistry Seminar, New Mexico Institute of Mining and Technology M Tech, Socorro, NM, 08/2014
7. **Chi EY[§]**, “Structure and Dynamics of Functional Polyampholytes”, New Mexico Institute of Mining and Technology, Biomaterials Workshop, Socorro, NM, 3/2014
8. **Chi EY[§]**, “Protein dynamics and assembly at interfaces”, Advanced Photon Source Liquid & Soft-Matter Surface Scattering Special Interest Group Seminar, Argonne National Laboratory, Argonne, IL, 11/2013
9. **Chi EY[§]**, “Structure and dynamics of functional polyampholytes”, New Mexico Consortium/Los Alamos National Laboratories Joint Bio-imitative Workshop, Los Alamos, NM, 5/2013
10. *Departmental Seminar*: **Chi EY[§]**, “Protein misfolding in neurodegenerative diseases”, Neuroscience Seminar Series, Department of Neurosciences, University of New Mexico Health Sciences Center, Albuquerque, NM, 4/2013
11. *Departmental Seminar*: **Chi EY[§]**, “Protein misfolding and aggregation in diseases”, Department of Chemical and Petroleum Engineering, University of Wyoming, Laramie, WY, 11/2012
12. *Departmental Seminar*: **Chi EY[§]**, “Protein misfolding and aggregation in diseases”, Department of Chemical and Biological Engineering, Colorado State University, Fort Collins, CO, 11/2012
13. **Chi EY[§]**, “Protein misfolding in neurodegenerative diseases”, Clinical Neuroscience Grand Rounds, University of New Mexico Health Sciences Center, Albuquerque, NM, 10/2012
14. **Chi EY[§]**, “Protein misfolding in neurodegenerative diseases”, UNM Integrating Nanotechnology with cell Biology and Neuroscience (INCBN) IGERT Program, Albuquerque, NM, 9/2012
15. *Departmental Seminar*: **Chi EY[§]**, “Protein misfolding and aggregation at interfaces”, Department of Chemistry and Chemical Biology, University of New Mexico, Albuquerque, NM, 9/2012
16. **Chi EY[§]**, “Protein stabilization by a novel sol-gel method”, Center for Integrated Nanotechnologies (CINT) User Conference, Albuquerque, NM, 9/2012
17. *Webinar*: **Chi EY[§]**, “Excipients and the effects on biologics quality: how variability in excipients impacts biological formulations”, organized by the FDD Section Excipients Focus Group of the American Association of Pharmaceutical Scientists. 9/2011
18. Jones EM[§], **Chi EY**, “Interaction of Alzheimer’s disease tau protein with model lipid membranes”, AVS National 57th International Symposium and Exhibition, Nashville, TN, 10/2011
19. **Chi EY[§]**, “Protein misfolding and aggregation at interfaces”, University of Kansas, Department of Pharmaceutical Chemistry, Departmental Seminar, Lawrence, KS, 12/2009

20. **Chi EY**[§], “Mechanisms and driving forces of protein aggregation”, Pfizer Inc., St. Louis, MO, 7/2008
21. **Chi EY**[§], “Protein aggregation – mechanism, thermodynamic driving forces, and kinetics”, Monoclonal Antibody Workshop of the European Association of Pharma Biotechnology and European Federation of Pharmaceutical Sciences), Heidelberg, Germany, 6/2008
22. **Chi EY**[§], “Protein misfolding and aggregation”, Fudan University, Shanghai, China, 4/2008
23. **Chi EY**[§], “Protein aggregation – mechanism, thermodynamic driving forces, and kinetics”, Cambridge Healthtech Institute PepTalk Workshop, San Diego, CA, 1/2008
24. **Chi EY**[§], “Protein misfolding and aggregation”, Genentech Inc., South San Francisco, CA, 7/2007
25. **Chi EY**[§], Randolph TW, Manning MC, Carpenter JF, Weickmann J, “Surface induced particulate formation in pharmaceutical formulations”, American Association of Pharmaceutical Scientists National Biotechnology Conference, BIOTEC Open Forum, Flakes and Clumps: Cause, Detection, and Impact of Particulates During Bioprocessing, San Diego, CA, 6/2007
26. **Chi EY**[§], Ege C, Winans A, Lee KYC, Majewski J, Kjeur K, “Lipid-membrane template fibrillogenesis of Alzheimer’s disease amyloid-beta peptide”, 8th Los Alamos Neutron Science Center User Group Meeting, Santa Fe, NM, 6/2007
27. **Chi EY**[§], Randolph TW, Carpenter JF, “Aggregation of therapeutic proteins: mechanisms, thermodynamic driving forces, and kinetics”, 42nd Annual Pharmaceutical Technologies Arden Conference - Best Practices for Parenteral Dosage Forms: Formulation and Process Development, Package Selection, and Manufacturing, West Point, NY, 1/2007
28. **Chi EY**[§], Zhang Y, Roy S, Jones LS, Krishnan S, Manning MC, Carpenter JF, Randolph TW, Kendrick BS, Kerwin BA, Chang BS, “Mechanism and kinetics of benzyl alcohol-induced aggregation of rhIL1-ra”, American Association of Pharmaceutical Scientists Roundtable: Impact of Preservatives on Proteins, San Antonio, TX, 10/2006
29. **Chi EY**[§], Weickmann J, Manning MC, Carpenter JF, Randolph TW, “Heterogeneous nucleation-controlled aggregation in pharmaceutical formulation” American Chemical Society Prospective – Successful Protein Therapeutics: The Interconnection of Formulation, Process Development & Manufacturing, San Diego, CA, 7/2006
30. **Chi EY**[§], Carpenter JF, Randolph TW, “Protein aggregation mechanism, thermodynamic driving forces, and kinetics”, Baxter Healthcare Corp., Round Lake, IL, 6/2006
31. **Chi EY**[§], Frey SL, Lee KYC, “Role of cell membrane in the pathogenesis of Alzheimer’s disease”, Indiana Microscopy Society Meeting, Notre Dame, IN, March 2006
32. **Chi EY**[§], Ege C, Lee KYC, “Role of cell membrane in the pathogenesis of Alzheimer’s disease”, Institute for Biophysical Dynamics Research Seminar, Chicago, IL, 5/2005
33. **Chi EY**[§], Weickmann J, Manning MC, Carpenter JF, Randolph TW, “Heterogeneous nucleation-controlled particulate formation in pharmaceutical formulation”, 4th Annual Formulation Strategies for Biopharmaceutical Drug Development and Delivery, Washington D.C., 3/2005
34. **Chi EY**[§], “Protein aggregation mechanism, thermodynamics, and kinetics”, University of Chicago, Chicago, IL, 12/2003
35. **Chi EY**[§], Krishnan S, Kendrick BS, Chang BS, Carpenter JF, Randolph TW, “Mechanism and driving forces in non-native protein aggregation”, Colorado Protein Stability Conference, Breckenridge, CO, 7/2003

PROFESSIONAL MEMBERSHIPS

- American Institute of Chemical Engineers
- American Chemical Society
- Biophysical Society
- AVS
- American Association of Pharmaceutical Scientists