

RONALD E. STENKAMP

Curriculum Vitae

School of Medicine Format

1. Personal Data:

Born: May 14, 1948; Bend, Oregon.
Married: Larilyn Zeller, 1970.
Children: David, 1979.

2. Education:

B.A., Chemistry, Honors College, University of Oregon, Eugene, Oregon, 1970.
M.Sc., Chemistry, University of Washington, Seattle, Washington, 1971.
Ph.D., Chemistry, University of Washington, Seattle, Washington, 1975.

3. Postgraduate Training:

Senior Fellow, Department of Biological Structure, University of Washington, Seattle, Washington, summer, 1975.
American Cancer Society Postdoctoral Fellow, Postdoctoral Associate, Sessel-Anonymous Fellow with Dr. T.A. Steitz, Department of Molecular Biophysics and Biochemistry, Yale University, New Haven, Connecticut, 1975-1977.
American Cancer Society Postdoctoral Fellowship, Research Associate, Department of Biological Structure, University of Washington, Seattle, Washington, 1977 - 1981.

4. Faculty Positions Held:

Research Assistant Professor, Department of Biological Structure, University of Washington, Seattle, Washington, 1981 - 1986.
Research Associate Professor, Department of Biological Structure, University of Washington, Seattle, Washington, 1986 - 1987.
Associate Professor, Department of Biological Structure, University of Washington, Seattle, Washington, 1987 -2002; Adjunct Associate Professor, Department of Chemistry, University of Washington, 1987-2002; Adjunct Associate Professor, Department of Biochemistry, University of Washington, 1992-2002.
Professor, Department of Biological Structure, University of Washington, Seattle, Washington, 2002 -; Adjunct Professor, Department of Chemistry, University of Washington, 2002-; Adjunct Professor, Department of Biochemistry, University of Washington, 2002; Professor (joint), Department of Biochemistry, University of Washington, 2003-

5. Honors:

Phi Beta Kappa, 1969.
Honorable Mention, Outstanding Teaching Assistant Program, Department of Chemistry, University of Washington, 1971.
Phi Lambda Upsilon, 1972.
Co-author of one of 103 Most Cited Papers in pure chemistry published in 1981 (Current Contents, 12, 3-16,(1985)). The paper reference is Nature, 291, 263-264 (1981).
Service Award, American Crystallographic Association, 2000.
Fellow, American Crystallographic Association, 2014.

6. Professional Organizations:

American Crystallographic Association.
Continuing Education Committee, 1985 - 1987.
Program Chair, Annual Meeting, Albuquerque, New Mexico, May 23-28, 1993.

Newsletter Editor, 1994-
 Chair, Biological Macromolecules Special Interest Group, 1995.
 Publications Committee, 1997-1999.

American Chemical Society.
 American Association for the Advancement of Science.

7. Teaching Responsibilities:

Cell Structure and Function (10%)	BioStr 511, Winter, 1982.
Graduate Student Seminar	BioStr 557, Fall, 1982.
Structure of Biological Molecules (50%)	BioStr 518, Spring, 1984,1986,1988, 1990.
Biological X-ray Structure analysis	BioStr 515, Winter, 1987-
Current Problems in Macromolecular Structure	BioStr 519, 1989, 1995-1998,2002-.
Topics in Developmental and Systemic Cell Biology	BioStr 556 Spring, 1991-1993.
Biochemistry (50%)	Biochem 440, Fall, 1995-1998. Biochem 405, Fall, 2001-2004.
Chemistry	Chemistry 150, Spring, 1997.
Freshman Seminar	Gen Studies 197, Fall, 1995, Spring, 1996.
BMSD Literature Seminar	BMSD 541, Winter, 2009.
Invited lectures in:	Chemistry 510, Iron Chemistry and Life Processes, Fall,1984; UConj 504, Cell and Molecular Biology and Disease, Fall, 1989; Biochemistry 530, Advanced Biochemistry, Fall, 1992,1993,1994; Biochemistry 540, Literature Review, Fall, 1992,1994; UConj 514, Fall, 1996; BMSD 540, Fall, 1996-; Biol. Structure 520, Spring, 1999; Technical Communications 440, Fall, 2000; Conj 524, 200?-

8. Special National Responsibilities:

Co-organizer, VII West Coast Protein Crystallography Workshop, March 17-20, 1985, Asilomar, California.
 NIH Special Study Section reviewing X-ray diffraction equipment proposals, 1988, 1989, 1990,1994.
 NIH Special Study Section, 2005, 2008.
 NIH BBM Study Section, ad hoc member, May, 2009; May, 2010.
 NIH NIGMS Council, ad hoc member, May, 2010
 Proposal Review Panel, Stanford Synchrotron Radiation Lightsource.
 Scientific Advisory Committee, Stanford Synchrotron Radiation Lightsource.
 Structural and Molecular Biology Advisory Committee, Stanford Synchrotron Radiation Lightsource.
 Organizing Committee, 1996 International Union of Crystallography Congress, 1991 - 1996
 Reviewer, NSF proposal, 1995,1998.
 Reviewer, beamtime requests, CHESS, 1995.
 Member, United States National Committee for Crystallography, 2002-2008
 Co-organizer, North West Crystallography Workshop, Seattle, WA, 2006.

9. Special Local Responsibilities:

Scientific Affairs Committee, School of Medicine, University of Washington, 1989 - 1990.
 Faculty Senate, University of Washington, 1991 – 1995, 2005-2008, 2011-2012
 Steering Committee, Interdisciplinary Molecular and Cellular Biology Program, 1993-97.
 Steering Committee, Molecular Biophysics Training Grant, 1996-
 Graduate Program Coordinator, Dept. of Biological Structure, 1995-2000.
 Reviewer, Univ. of Washington Royalty Research Fund, 1995,1996.
 Faculty Council on Research, 2006-2012
 Royalty Research Fund evaluation committee, 2008-2009.

Nominating Committee, Faculty Lecture, 2011-2012.
 Nominating Committee, Vice-chair, Faculty Senate, 2012.
 Adjudication Panel, 2012-

10. Bibliography

a. Manuscripts in Refereed Journals:

1. Matthews, B. W., R. E. Stenkamp and P. M. Colman 1973 The crystal and molecular structure of the polymethine dye 1,3-Bis(dimethylamino)-trimethinium perchlorate: A comparison of optical and x-ray crystal structure determinations. *Acta Cryst.*, B29, 449-454.
2. Stenkamp, R. E. and L. H. Jensen 1973 The crystal structure of a pepsin substrate: N-acetyl-L-phenyl-alanyl-L-tyrosine. *Acta Cryst.*, B29, 2872-2878.
3. Stenkamp, R. E. and L. H. Jensen 1974 The crystal structure of D,L-alanyl- L,D-methionine. *Acta Cryst.*, B30, 1541-1545.
4. Stenkamp, R. E. and L. H. Jensen 1975 The crystal structure of L-methionyl- L-methionine. *Acta Cryst.*, B31, 857-861.
5. Stenkamp, R. E. and L. H. Jensen 1975 Effects of data set thresholds. *Acta Cryst.*, B31, 1507-1509.
6. Stenkamp, R. E. and L. H. Jensen 1976 Test refinements with simulated protein data sets. *Acta Cryst.*, A32, 255-258.
7. Stenkamp, R. E., L. C. Sieker, L. H. Jensen, and J. S. Loehr 1976 Structure of methemerythrin at 5 Å resolution. *J. Mol. Biol.*, 100, 23-34.
8. Stenkamp, R. E., L. C. Sieker and L. H. Jensen 1976 Structure of the Fe complex in methemerythrin. *Proc. Nat. Acad. Sci., USA*, 73, 349-351.
9. Fitzgerald, A., R. E. Stenkamp, K. D. Watenpaugh and L. H. Jensen 1977 The crystal and molecular structure of dihydroxo (1,2,3,4,5,6,7,8-octaethyl porphinato) antimony (V) perchlorate monoethanol solvate: A crystal structure that exhibits a subcell. *Acta Cryst.*, B33, 1688-1696.
10. Steitz, T. A., C. Anderson, W. Bennett, R. McDonald and R. Stenkamp 1977 Protomer structure of oligomeric enzymes: Symmetry and allosteric interactions in yeast hexokinase. *Biochem. Soc. Trans.*, 5, 620-623.
11. Stenkamp, R. E., L. C. Sieker, L. H. Jensen and J. McQueen, Jr. 1978 The crystal structure of methemerythrin at 2.8 Å resolution. *Biochemistry*, 17, 2499-2504.
12. Anderson, C. M., R. E. Stenkamp, and T. A. Steitz 1978 Sequencing a protein by X-ray crystallography. II. Refinement of yeast hexokinase B. Coordinates and sequence at 2.1 Å resolution. *J. Mol. Biol.*, 123, 15-33.
13. Adman, E. T., R. E. Stenkamp, L. C. Sieker and L. H. Jensen 1978 A crystallographic model for azurin at 3 Å resolution. *J. Mol. Biol.*, 123, 35-47.
14. Anderson, C. M., R. E. Stenkamp, R. C. McDonald and T. A. Steitz 1978 A refined model of the sugar binding site of yeast hexokinase B. *J. Mol. Biol.*, 123, 207-219.
15. Stenkamp, R. E., L. C. Sieker and L. H. Jensen 1978 Crystallographic studies of azide, thiocyanate and perchlorate complexes of methemerythrin. *J. Mol. Biol.*, 126, 457-466.
16. Stenkamp, R. E., L. C. Sieker and L. H. Jensen 1978 Difference Fourier refinement of methemerythrin. *Acta Cryst.*, A34, 1014-1019.
17. Clarke, S. E., L. C. Sieker, R. E. Stenkamp and J. S. Loehr 1979 Mercury binding to hemerythrin. Coordination of mercury and its effects on subunit interactions. *Biochemistry*, 18, 684-689.

18. Pickart, L., J. H. Freedman, W. J. Loker, J. Peisach, C. M. Perkins, R. E. Stenkamp and B. Weinstein 1980 Growth-modulating plasma tripeptide may function by facilitating copper uptake into cells. *Nature*, 288, 715-717.
19. Stevenson, T. T., R. E. Stenkamp, L. H. Jensen, T. G. Cochran, F. Shafizadeh and R. H. Furneaux 1981 The crystal structure of 1,5-anhydro-4-deoxy-D-glycero-hex-1-en-3-ulose. *Carbohydrate Research*, 90, 319-325.
20. Sieker, L. C., L. Bolles, R. E. Stenkamp, L. H. Jensen and C. A. Appleby 1981 Preliminary X-ray study of a dimeric form of hemerythrin from *Phascolosoma arcuatum*. *J. Mol. Biol.*, 148, 493-494.
21. Stenkamp, R. E., L. C. Sieker, L. H. Jensen and J. Sanders-Loehr 1981 Structure of the binuclear iron complex in metazidohemerythrin at 2.2 Å resolution. *Nature*, 291, 263-264.
22. Engstrom, G. W., R. E. Stenkamp, D. J. McDorman and L. H. Jensen 1982 X-ray and spectral structure confirmation and Fe binding capacity of erythroglaucin, a red pigment from *Eurotium ruber*. *Journal of Agricultural and Food Chemistry*, 30, 304-307.
23. Stevenson, T. T., R. E. Stenkamp, L. H. Jensen, F. Shafizadeh, and R. H. Furneaux 1982 The crystal structure of an olefinic cyclic trimer of levoglucosenone. *Carbohydrate Research*, 104, 11-19.
24. Stenkamp, R. E., L. C. Sieker and L. H. Jensen 1982 Restrained least squares refinement of *Themiste dyscritum* methydroxohemerythrin at 2.0 Å resolution. *Acta Cryst.*, B38, 784-792.
25. Stenkamp, R. E. and R. P. Ko 1982 1,2-Dimethyl-5-trifluoroacetyl-2-H-cyclopenta [d] pyridazine. *Acta Cryst.*, B38, 994-996.
26. Stenkamp, R. E., L. H. Jensen, T. B. Murphy and N. J. Rose 1982 Structure of a benzene solvate of alpha-furildioxime. *Acta Cryst.*, B38, 1169-1172.
27. Stevenson, T. T., R. H. Furneaux, D. Pang, F. Shafizadeh, L. H. Jensen and R. E. Stenkamp 1983 The crystal structure of a nonalkenic, cyclic trimer of levoglucosenone. *Carbohydrate Research*, 112, 179-187.
28. Stevenson, T. T., M. G. Essig, F. Shafizadeh, L. H. Jensen and R. E. Stenkamp 1983 The crystal structure of an epoxide of a levoglucosenone- cyclopentadiene adduct. *Carbohydrate Research*, 118, 261-268.
29. Stenkamp, R. E., L. C. Sieker and L. H. Jensen. 1983 The structure of the iron complex in metaquoemerythrin. *J. Inorganic Biochemistry*, 19, 247-253.
30. Stenkamp, R. E., L. C. Sieker and L. H. Jensen. 1983 Adjustment of Restraints in the refinement of methemerythrin and azidomethemerythrin at 2.0 Å resolution. *Acta Cryst.*, B39, 697-703.
31. Perkins, C. M., N. J. Rose, R. E. Stenkamp, L. H. Jensen, B. Weinstein and L. Pickart 1984 The structure of a copper complex of the growth factor glycyl-L-histidyl-L-lysine at 1.1 Å resolution. *Inorganica Chimica Acta*, 82, 93-99.
32. Stenkamp, R. E., L. C. Sieker and L. H. Jensen. 1984 Binuclear iron complexes in methemerythrin and azidomethemerythrin at 2.0 Å resolution. *J. Am. Chem. Soc.*, 106, 618-622.
33. Essig, M. G., F. Shafizadeh, T. G. Cochran and R. E. Stenkamp 1984 The crystal structure of a septanose derived from levoglucosenone. *Carbohydrate Research*, 129, 55-61.
34. Essig, M. G., T. T. Stevenson, F. Shafizadeh, R. E. Stenkamp and L. H. Jensen. 1984 1S-(1 α ,4 α ,5 β ,5 $\alpha\beta$,6 β ,8 β ,9 $\alpha\beta$)-octahydro-5,8-dihydroxyl-1,4-epoxy-6,9- methano-3-benzoxepin-7(2H)-one (a levoguclosonone derivative). The product of a 1,4-hydride shift. *J. Org. Chem.*, 49, 3652-3656.
35. Stenkamp, R. E. and L. H. Jensen. 1984 Resolution revisited. *Acta Cryst.*, A40, 251-254.
36. Stenkamp, R. E., L. C. Sieker, L. H. Jensen, J. D. McCallum, and J. Sanders-Loehr. 1985 Active site structures of deoxyhemerythrin and oxyhemerythrin. *Proc. Natl. Acad. Sci., USA.*, 82, 713-716.

37. Sheriff, S., W. A. Hendrickson, R. E. Stenkamp, L. C. Sieker and L. H. Jensen. 1985 Influence of solvent accessibility and intermolecular contacts on atomic mobilities in hemerythrins. *Proc. Natl. Acad. Sci., USA.*, 82, 1104-1107.
38. Kissinger, C. R., E. T. Adman, J. I. Clark and R. E. Stenkamp. 1985 The crystal structure of sorbinil. *Acta Cryst.*, C41, 988-990.
39. Raucher, S., D.S. Jones and R.E. Stenkamp. 1985 [3,3] Sigmatropic rearrangements of benzyl vinyl ethers. Model studies directed toward the total synthesis of cephalotaxine. *J. Org. Chem.*, 50, 4523-4526.
40. Maroney, M.J., E.O. Fey, D.A. Baldwin, R.E. Stenkamp, L.H. Jensen, and N.J. Rose. 1986 The bonding mode of axial NCS⁻ ligands of iron macrocyclic complexes. The crystal structure of [Fe(TIM)(SCN)₂]PF₆. *Inorg. Chem.*, 25, 1409-1414.
41. Kaizu, T., S.B. Levery, E. Nudelman, R.E. Stenkamp and S-I. Hakomori 1986 Novel fucolipids of human adenocarcinoma: Monoclonal antibody specific for trifucosyl Le^y (III³FucV³FucVI²FucnLc⁶) and a possible three-dimensional epitope structure. *J. Biol. Chem.*, 261, 11254-11258.
42. Sieker, L.C., R.E. Stenkamp and L.H. Jensen 1986 Structure of rubredoxin from the bacterium *Desulfovibrio desulfuricans*. *FEBS Letters*, 208, 73-76.
43. Bryan, J.C., R.E. Stenkamp, T.H. Tulip and J.M. Mayer 1987 Oxygen atom transfer between rhenium, sulfur and phosphorus. Characterization and reactivity of Re(O)Cl₃(Me₂S)(OPPh₃) and Re(O)Cl₃(CNCMe₃)₂. *Inorg. Chem.*, 26, 2283-2288.
44. Raucher, S., L.M. Gustavson and R.E. Stenkamp 1987 An unusual cyclization of a homoallyl oxyacetic acid dianion. *J. Org. Chem.*, 52, 2760-2762.
45. Norman, R.E., N.J. Rose and R.E. Stenkamp 1987 Crystal structure of a copper complex of 2-carboxypentonic acid: A decomposition product of dehydroascorbic acid. *J. Chem. Soc. Dalton Trans.*, 2905-2910.
46. Vasilevsky, I., R.E. Stenkamp, E.C. Lingafelter and N.J. Rose 1988 Syntheses and structures of μ-Oxo-bis{dichloro iron(III)}-bis- [2,6-diacetyl- pyridinedioximate(-1)] iron(II) and related compounds. *J. Coord. Chem.*, 19, 171-187.
47. Sieker, L.C., S. Turley, I. Le Trong, R.E. Stenkamp, P.F. Weller and S.J. Ackerman 1988 Crystallographic characterization of human eosinophil Charcot-Leyden crystals. *J. Mol. Biol.*, 204, 489-491.
48. Vasilevsky, I.V., R.E. Stenkamp, E.C. Lingafelter, V. Schomaker, R.D. Willett and N.J. Rose 1989 Structure and magnetic Properties of bis[(2,6)-diacetylpyridine dioxime]chlorocopper(II) tetrachlorocuprate. *Inorg. Chem.*, 28, 2619-2623.
49. Norman, R.E., N.J. Rose and R.E. Stenkamp 1989 Simple, direct synthesis and structure of hexa-μ-chloro-tetrakis- (1-methylimidazole)- μ₄-oxo-tetracopper(II). *Acta Cryst.*, C45, 1707-1713.
50. Norman, R.E., N.J. Rose and R.E. Stenkamp 1990 Mono-amino-acid-copper complexes: Syntheses and structures of chloro(glycinato)(methanol)copper(II) and chloro(glycinato)(1-methylimidazole)copper(II). *Acta Cryst.*, C46, 1-6.
51. Norman, R.E. and R.E. Stenkamp 1990 Structure of a copper(II) complex of 2-C-carboxypentonic acid (H₃cpa); [Cu₉Br₂(cpa)₆]_n²⁻ · xH₂O. *Acta Cryst.*, C46, 6-8.
52. Perkins, C.M., N.J. Rose and R.E. Stenkamp 1990 The structure of cobalt methylmalonate complexes, CoClN₄O₇C₁₀H₂₈ and CoCl₂N₄O_{5.5}C₁₁H₂₈, Models for metal complexes of γ-carboxyglutamic acid. *Inorganica Chimica Acta*, 172, 119-125.
53. Bishop, P.D., G.W. Lasser, I. Le Trong, R.E. Stenkamp and D.C. Teller 1990 Human recombinant factor XIII from *Saccharomyces cerevesiae*: Crystallization and preliminary X-ray data. *J. Biol. Chem.*, 265, 13888-13889.

54. Stenkamp, R.E., L.C. Sieker and L.H. Jensen 1990 The structure of rubredoxin from *Desulfovibrio desulfuricans* Strain 27774 at 1.5 Å resolution. *Proteins: Structure, Function and Genetics*, 8, 352-364.
55. Holmes, M.A., I. Le Trong, S. Turley, L.C. Sieker and R.E. Stenkamp 1991 Structures of deoxy and oxy hemerythrin at 2.0 Å resolution. *J. Mol. Biol.*, 218, 583-593.
56. Holmes, M.A. and R.E. Stenkamp 1991 Structures of met and azidomet hemerythrin at 1.66 Å resolution. *J. Mol. Biol.*, 220, 723-737.
57. Vasilevsky, I., N.J. Rose, R. Stenkamp and R.D. Willett 1991 Crystal structure and magnetic behavior of $\text{Cu}(\text{C}_{14}\text{H}_{24}\text{N}_4)\text{CuCl}_4$: An alternating-metal-site, alternating-exchange, spin 1/2 linear-chain system. *Inorg. Chem.*, 30, 4082-4084.
58. Vasilevsky, I., N.J. Rose, and R.E. Stenkamp 1992 Structural studies of μ -oxo-bridged iron compounds. *Acta Cryst.*, B48, 444-449.
59. Aruffo, A., M. Farrington, D. Hollenbaugh, X. Li, A. Milatovich, S. Nonoyama, J. Bajorath, L.S. Growmaire, R. Stenkamp, M. Neubauer, R.L. Roberts, R.J. Noelle, J.A. Ledbetter, U. Francke, and H.D. Ochs 1993 The CD40 ligand, gp39, is defective in activated T cells from patients with X-linked hyper-IgM syndrome. *Cell*, 72, 291-300.
60. Hollenbaugh, D., J. Bajorath, R. Stenkamp and A. Aruffo 1993 Interaction of P-selectin (CD62) and its cellular ligand: Analysis of critical residues. *Biochemistry*, 32, 2960-2966.
61. Bajorath, J., R. Stenkamp and A. Aruffo 1994 Knowledge-based model building of proteins: Concepts and examples. *Protein Science*, 2, 1798-1810.
62. Pedersen, L.C., V.C. Yee, G. von Dassow, M. Hazeghazam, G.R. Reeck, R.E. Stenkamp and D.C. Teller 1994 The corn inhibitor of blood coagulation factor XIIa. Crystallization and preliminary crystallographic analysis. *J. Mol. Biol.*, 236, 385-387.
63. Stenkamp, R.E. 1994 Dioxygen and hemerythrin. *Chemical Reviews*, 94, 715-726.
64. Yee, V.C., L.C. Pedersen, I. Le Trong, P.D. Bishop, R.E. Stenkamp and D.C. Teller 1994 Three-dimensional structure of a transglutaminase: Human blood coagulation factor XIII. *Proc. Natl. Acad. Sci., U.S.A.*, 91, 7296-7300.
65. Pedersen, L.C., V.C. Yee, P.D. Bishop, I. Le Trong, D.C. Teller and R.E. Stenkamp 1994 Transglutaminase factor XIII uses proteinase-like catalytic triad to crosslink macromolecules. *Protein Science*, 3, 1131-1135.
66. Bajorath, J., R. Stenkamp and A. Aruffo 1995 Comparison of a protein model with its X-ray structure: The ligand binding domain of E-selectin. *Bioconjugate Chemistry*, 6, 3-6.
67. Yee, V.C., L.C. Pedersen, P.D. Bishop, R.E. Stenkamp and D.C. Teller 1995 Structural evidence that the activation peptide is not released upon thrombin cleavage of factor XIII. *Thrombosis Research*, 78, 389-397.
68. Yee, V.C., I. Le Trong, P.D. Bishop, L.C. Pedersen, R.E. Stenkamp and D.C. Teller 1996 Structure and function studies of factor XIII A-subunit by X-ray Crystallography. *Seminars in Thrombosis and Haemostasis*, 22, 377-384.
69. Yee, V.C., K.P. Pratt, H.C.F. Côté, I. Le Trong, D.W. Chung, E.W. Davie, R.E. Stenkamp and D.C. Teller 1997 Crystal structure of a 30 kDa C-terminal fragment from the γ chain of human fibrinogen. *Structure*, 5, 125-138.
70. Freitag, S., I. Le Trong, L. Klumb, P.S. Stayton and R.E. Stenkamp 1997 Structural Studies of the Streptavidin Binding Loop. *Protein Science*, 6, 1157-1166.
71. Pratt, K.P., Côté, I. Le Trong, D.W. Chung, R.E. Stenkamp and E.W. Davie 1997 The primary fibrin polymerization pocket: Three-dimensional structure of a 30 kDa C-terminal gamma chain fragment complexed with the peptide Gly-Pro-Arg-Pro, *Proc. Natl. Acad. Sci., USA*, 94, 7176-7181.
72. Chu, V., S. Freitag, I. Le Trong, R.E. Stenkamp and P.S. Stayton 1998 Thermodynamic and Structural Consequences of Flexible Loop Deletion by Circular Permutation in the Streptavidin-

- Biotin System, *Protein Science*, 7, 848-859. (V. Chu and S. Freitag should be consider co-first authors).
73. Freitag, S., I. Le Trong, A. Chilkoti, L. Klumb, P.S. Stayton and R.E. Stenkamp 1998 Structural studies of binding site tryptophan mutants in the high-affinity streptavidin-biotin complex. *J. Mol. Biol.*, 279, 211-221.
 74. Edwards, T.C., S. Koppenol, W. Frey, W.R. Schief Jr., V. Vogel, R.E. Stenkamp and P.S. Stayton 1998 Molecular basis for ionic strength dependence and crystal morphology in two-dimensional streptavidin crystallization. *Langmuir*, 14, 4683-4687.
 75. Behnke, C.C., V.C. Yee, I. Le Trong, L.C. Pedersen, R.E. Stenkamp, S.-S. Kim, G.R. Reeck and D.C. Teller 1998 Structural determinants of the bifunctional corn Hageman factor inhibitor: X-ray crystal structure at 1.95 Å resolution. *Biochemistry*, 37, 15277-15288.
 76. Fox, B.A., V.C. Yee, L.C. Pedersen, I. Le Trong, P.D. Bishop, R.E. Stenkamp and D.C. Teller 1999 Identification of the calcium binding site and a novel ytterbium site in blood coagulation factor XIII by X-ray crystallography, *J. Biol. Chem.*, 274, 4917-4923.
 77. Sieker, L.C., M. Holmes, I. Le Trong, S. Turley, B.D. Santarsiero, M.-Y. Liu, J. LeGall and R.E. Stenkamp 1999 Alternative metal binding sites in rubrerythrin: Which is the functional binuclear center?, *Nature Structural Biology*, 8, 308-309.
 78. Freitag, S., I. Le Trong, L.A. Klumb, P.S. Stayton and R.E. Stenkamp 1999 Atomic Resolution Crystal Structure of Biotin-free Tyr43Phe Streptavidin: What is in the Binding Site? *Acta Crystallographica*, D55, 1118-1126. (S. Freitag and I. Le Trong should be considered co-first authors.)
 79. Freitag, S., V. Chu, J.E. Penzotti, L.A. Klumb, R. To, I. Le Trong, T.P. Lybrand, R.E. Stenkamp and P.S. Stayton 1999 A Structural Snapshot of an Intermediate on the Streptavidin-Biotin Dissociation Pathway, *Proc. Natl. Acad. Sci., USA*, 96, 8384-8389. (S. Freitag, V. Chu, and J. Penzotti should be considered co-first authors).
 80. Okada, T., I. Le Trong, B.A. Fox, C.A. Behnke, R.E. Stenkamp and K. Palczewski 1999 X-ray Diffraction analysis of Three-dimensional Crystals of Bovine Rhodopsin Obtained from Mixed Micelles. *J. Struct. Biol.*, 130, 73-80.
 81. Hyre, D.E., I. Le Trong, S. Freitag, R.E. Stenkamp and P.S. Stayton 2000 Serine 45 plays an important role in managing both the equilibrium and transition state energetics of streptavidin-biotin. *Protein Science*, 9, 878-885.
 82. Sieker, L.C., M. Holmes, I. Le Trong, S. Turley, M.-Y. Liu, J. LeGall and R.E. Stenkamp 2000 The 1.9 Å Crystal Structure of the "As Isolated" Rubrerythrin from *Desulfovibrio vulgaris*: Some Surprising Results. *J. Biol. Inorg. Chem.*, 5, 505-513.
 83. Palczewski, K., T. Kumasaka, T. Hori, C.A. Behnke, H. Motoshima, B.A. Fox, I. Le Trong, D.C. Teller, T. Okada, R.E. Stenkamp, M. Yamamoto and M. Miyano 2000 Crystal Structure of Rhodopsin: A G Protein-Coupled Receptor. *Science*, 289, 739-745.
 84. Adman, E.T., I. Le Trong, R.E. Stenkamp, B.S. Nieslanik, E.C. Dietze, G. Tai, C. Ibarra and W.M. Atkins 2001 Localization of the C-terminus of Rat Glutathione S-Transferase A1-1: Crystal Structure of Mutants W21F and W21F/F220Y⁺. *Proteins: Structure, Function and Genetics*, 42, 192-200.
 85. Teller, D.C., T. Okada, C.A. Behnke, K. Palczewski and R.E. Stenkamp 2001 Advances in Determination of a High-Resolution Three-Dimensional Structure of Rhodopsin, A Model of G-Protein-Coupled Receptors (GPCRs). *Biochemistry*, 40, 7761-7772.
 86. Hatcher, M.E., I. Le Trong, R.E. Stenkamp and G.P. Drobny 2001 The Local Dynamics of the CpG Step in a DNA Crystal. *J. Am. Chem. Soc.*, 123, 8874-8875.
 87. Stenkamp, R.E., S. Filipek, C.A.G.G. Driessen, D.C. Teller and K. Palczewski 2002 Crystal structure of rhodopsin: A template for cone visual pigments and other G protein-coupled receptors, *Biochim. Biophys. Acta. Biomembranes*, 1565, 168-182.

88. Stenkamp, R.E., D.C. Teller and K. Palczewski 2002 Crystal Structure of Rhodopsin: A G Protein-Coupled Receptor. *Chembiochem*, 3, 963-967.
89. Hyre, D.E., L.M. Amon, J.E. Penzotti, I. Le Trong, R.E. Stenkamp, T.P. Lybrand and P.S. Stayton 2002 Early mechanistic events in biotin dissociation from streptavidin, *Nature Structural Biology*, 9, 582-585.
90. Dixon, R.W., R.J. Radmer, B. Kuhn, P.A. Kollman, J. Yang, C. Rapaso, C.S. Wilcox, L.A. Klumb, P.S. Stayton, C. Behnke, I. Le Trong, R. Stenkamp 2002 Theoretical and experimental studies of biotin analogues that bind almost as tightly to streptavidin as biotin. *J. Org. Chem.* 67, 1827-1837.
91. Le Trong, I., R.E. Stenkamp, C. Ibarra, W.M. Atkins, E.T. Adman 2002 1.3-Å Resolution Structure of Human Glutathione S-Transferase with S-Hexyl Glutathione Bound Reveals Possible Extended Ligand Binding Site. *Proteins: Structure, Function and Genetics*, 48, 618-627.
92. Nauli, S., B. Kuhlman, I. Le Trong, R.E. Stenkamp, D. Teller and D. Baker 2002 Crystal structures and increased stabilization of the protein G variants with switched folding pathways NuG1 and NuG2, *Protein Science*, 11, 2924-2931.
93. Le Trong, I., T.C. McDevitt, K.E. Nelson, P.S. Stayton and R.E. Stenkamp 2003 Structural Characterization and Comparison of RGD Cell Adhesion Recognition Sites Engineered Into Streptavidin, *Acta Cryst. D59*, 828-834.
94. Le Trong, I., S. Freitag, L.A. Klumb, V. Chu, P.S. Stayton and R.E. Stenkamp 2003 Structural studies of hydrogen bonds in the high-affinity streptavidin-biotin complex: Mutations of amino acids interacting with the ureido oxygen of biotin. *Acta Cryst. D59*, 1567-1573.
95. Xing, Y., W.K. Clements, I. Le Trong, T.R. Hinds, R. Stenkamp, D. Kimelman and W. Xu 2004 Crystal structure of a β -catenin/APC complex reveals a critical role for APC phosphorylation in APC function. *Molecular Cell*, 15, 523-533.
96. Zhu, L., G.-F. Jang, B. Jastrzebska, S. Filipek, S.E. Pearce-Kelling, G.D. Aguirre, R.E. Stenkamp, G.M. Acland and K. Palczewski 2004 A naturally occurring mutation of the opsin gene (T4R) in dogs affects glycosylation and stability of the G protein-coupled receptor, *J. Biol. Chem.*, 279, 53828-53839.
97. Jastrzebska, B., T. Maeda, L. Zhu, D. Fotiadis, S. Filipek, A. Engel, R.E. Stenkamp and K. Palczewski 2004 Functional Characterization of Rhodopsin Monomers and Dimers in Detergents. *J. Biol. Chem.*, 279, 54663-54675.
98. Stenkamp, R.E. 2005 Anatomy of a *trans-cis* peptide transition during least-squares refinement of rubrerythrin. *Acta Cryst. D61*, 1599-1602.
99. Le Trong, I., N. Humbert, T.R. Ward and R.E. Stenkamp 2006 Crystallographic analysis of a full-length streptavidin and its C-terminal polypeptide bound in the biotin binding site. *J. Mol. Biol.*, 356, 738-745.
100. Hyre, D.E., I. Le Trong, E.A. Merritt, J.F. Eccleston, N.M. Green, R.E. Stenkamp and P.S. Stayton 2006 Cooperative hydrogen-bond interactions in the streptavidin-biotin system. *Protein Science*, 15, 459-467.
101. Jastrzebska, B., D. Fotiadis, G.-F. Jang, R.E. Stenkamp, A. Engel and K. Palczewski 2006 Functional and structural characterization of rhodopsin oligomers. *J. Biol. Chem.*, 281, 11917-11922.
102. Le Trong, I., D.G.L. Aubert, N.R. Thomas and R.E. Stenkamp 2006 The 0.85 Å resolution crystal structure of (+)-*epi*-biotin bound to streptavidin. *Acta Crystallographica*, D62, 576-581.
103. Salom, D., I. Le Trong, E. Pohl, J.A. Ballesteros, R.E. Stenkamp, K. Palczewski and D.T. Lodowski. 2006 Improvements in G Protein-Coupled Receptor Purification Yield Light Stable Rhodopsin Crystals, *J. Struct. Biology*, 156, 497-504.
104. Korotkova, N., I. Le Trong, R. Samudrala, K. Korotkov, C.P. Van Loy, A.-L. Bui, S. Moseley

- and R.E. Stenkamp 2006 Crystal structure and mutational analysis of the DaaE adhesin of *Escherichia coli*, *J. Biol. Chem.*, 2006. 281(31), 22367-22377.
105. Salom, D., D.T. Lodowski, R.E. Stenkamp, I. Le Trong, M. Golczak, B. Jastrzebska, T. Harris, J.A. Ballesteros and K. Palczewski 2006 Structure of a Photo-activated State of Rhodopsin, *Proc. Nat. Acad. Sci., USA*, 103, 16123-16128.
 106. Lodowski, D.T., D. Salom, I. Le Trong, D.C. Teller, J.A. Ballesteros, K. Palczewski and R.E. Stenkamp 2007 Crystal Packing Analysis of Rhodopsin Crystals, *J. Struct. Biol.*, 158, 455-462.
 107. Le Trong I. and R.E. Stenkamp 2007 An alternate description of two crystal structures of phospholipase A2 from *Bungarus caeruleus* *Acta Cryst. D*63(4), 548-549.
 108. Korotkova, N., Y. Yang, I. Le Trong, E. Cota, B. Demeler, J. Marchant, W.E. Thomas, R.E. Stenkamp, S.L. Moseley and S. Matthews 2008 Binding of Dr adhesins of *Escherichia coli* to carcinoembryonic antigen triggers receptor dissociation. *Molecular Microbiology*, 67(2), 420-434.
 109. Le Trong, I. and R.E. Stenkamp 2008 Alternative models for two crystal structures of *Candida albicans* 3,4-dihydroxy-2-butanone 4-phosphate synthase *Acta Cryst. D*64, 219-220.
 110. Creus, M., A. Pordea, T. Rossel, A. Sardo, C. Letondor, A. Ivanova, I. Le Trong, R.E. Stenkamp and T.R. Ward. 2008 X-ray structure and designed evolution of an artificial transfer hydrogenase. *Angew. Chem., Int. ed.*, 1400-1404.
 111. Rutherford, K., I. Le Trong, R.E. Stenkamp and W.W. Parson. 2008 Crystal Structures of Human 108V and 108M Catechol *O*-Methyltransferase, *J. Mol. Biol.*, 380(1), 120-130.
 112. Fox, D. 3rd, I. Le Trong, P. Rajagopal, P.S. Brzovic, R.E. Stenkamp and R.E. Klevit. 2008 Crystal Structure of the BARD1 Ankyrin Repeat Domain and Its Functional Consequences, *J. Biol. Chem.*, 283, 21179-21186.
 113. Stenkamp, R.E. 2008 Alternative models for two crystal structures of bovine rhodopsin, *Acta Cryst.*, D64, 902-904.
 114. Cerutti, D.S., I. Le Trong, R.E. Stenkamp, and T.P. Lybrand. 2008 Simulations of a protein crystal: Explicit treatment of crystallization conditions links theory and experiment in the streptavidin-biotin complex, *Biochemistry*, 47, 12065-12077.
 115. Saari, J.C., G.G. Garwin, R.E. Stenkamp, D.C. Teller, M. Nawrot. 2009 Release of 11-*cis*-retinal from Cellular Retinaldehyde-Binding Protein (CRALBP) by Acidic Lipids. *Molecular Vision.*, in press.
 116. Cerutti, D.S., I. Le Trong, R.E. Stenkamp and T.P. Lybrand. 2009 Dynamics of the streptavidin-biotin complex in solution and in its crystal lattice: Distinct behavior revealed by molecular simulations. *J. Phys. Chem. B*, 113, 6971-6985.
 117. Balogh, L.M., I. Le Trong, K.A. Kripps, K. Tars, R.E. Stenkamp, B. Mannervik, and W.M. Atkins. 2009 Structural Analysis of Glutathione Transferase A1-1 Mutant Tailored for High Catalytic Efficiency with Toxic Alkenals. *Biochemistry*, 48(32), 7698-7704. PMID: PMC2753285.
 118. Balogh, L.M., I. Le Trong, K.A. Kripps, L. Shireman, R.E. Stenkamp, W. Zhang, B. Mannervik and W.M. Atkins. 2010 Substrate Specificity Combined with Stereopromiscuity in Glutathione Transferase A4-4-dependent Metabolism of 4-Hydroxynonenal. *Biochemistry*, 49(7), 1541-1548.

119. Le Trong, I., P. Aprikian, B.A. Kidd, M. Forero-Shelton, V. Tchesnokova, P. Rajagopal, V. Rodriguez, G. Interlandi, R. Klevit, V. Vogel, R.E. Stenkamp, E.V. Sokurenko and W.E. Thomas. 2010 Structural Basis for Mechanical Force Regulation of the Adhesin FimH via Finger Trap-like β Sheet Twisting. *Cell*, 141, 645–655. DOI 10.1016/j.cell.2010.03.038.
120. Behnke, C., I. Le Trong, J. Godden, E.A. Merritt, D.C. Teller, J. Bajorath and R.E. Stenkamp. 2010 Atomic resolution studies of carbonic anhydrase II. *Acta Cryst.*, D66, 616-627.
121. Baugh, L., I. Le Trong, D.S. Cerutti, S.Gülich, P.S. Stayton, R.E. Stenkamp and T.P. Lybrand 2010 A Distal Point Mutation in the Streptavidin-biotin Complex Preserves Structure but Diminishes Binding Affinity: Experimental Evidence for Electronic Polarization Effects? *Biochemistry*, 49(22), 4568-4570.
122. Le Trong, I., P. Aprikian, B.A. Kidd, W.E. Thomas, E.V. Sokurenko and R.E. Stenkamp 2010 Donor Strand Exchange and Conformational Changes During *E. coli* Fimbrial Formation, *Journal of Structural Biology*, **172**, 380-388.
123. Aprikian, P., G. Interlandi, B.A. Kidd, I. Le Trong, V. Tchesnokova, O. Yakovenko, M. Whitfield, E. Bullitt, R.E. Stenkamp, W.E. Thomas and E.V. Sokurenko. 2011 The Bacterial Fimbrial Tip Acts as a Mechanical Force Sensor. *PLoS Biol* 9(5): e1000617.doi:10.1371/journal.pbio.1000617
124. Le Trong, I., Z. Wang, D.E. Hyre, T.P. Lybrand, P.S. Stayton and R.E. Stenkamp 2011 Streptavidin and Its Biotin Complex at Atomic Resolution, *Acta Cryst.*, D67, 813-821.
125. Baugh, L., I. Le Trong, D.S. Cerutti, N. Mehta, S. Gülich, P.S. Stayton, R.E. Stenkamp and T.P. Lybrand 2012 Second Contact Shell Mutation Diminishes Streptavidin-Biotin Binding Affinity Through Transmitted Effects on Equilibrium Dynamics, *Biochemistry*, 51, 597-607.
126. Li, M., I. Le Trong, M. Carl, E.T. Larson, S. Chou, J. De Leon, S.L. Dove, R.E. Stenkamp and J.D. Mougous. 2012 Structural basis for type VI secretion effector recognition by a cognate immunity protein, *PLoS Pathogens*, 8(4): e1002613. doi:10.1371/journal.ppat.1002613.
127. Scian, M., J.C. Lin, I. Le Trong, G.I. Makhatadze, R.E. Stenkamp and N.H. Andersen. 2012 Crystal and NMR structures of a Trp-cage mini-protein benchmark for computational fold prediction, *Proc. Natl. Acad. Sci., USA*, 109(31), 12521-12525.
128. Le Trong, I., V. Chu, Y. Xing, T.P. Lybrand, P.S. Stayton and R.E. Stenkamp. 2013 Structural Consequences of Cutting a Binding Loop: two Circularly Permuted Variants of Streptavidin, *Acta Cryst.*, D69, 968-977.
129. Pruneda, J.M., F.D. Smith, A. Daurie, D.L. Swaney, J. Villén, J.D. Scott, A.W. Stadnyk, I. Le Trong, R.E. Stenkamp, R.E. Klevit, J.R. Rohde, and P.S. Brzovic. 2014 E2~Ub conjugates regulate the kinase activity of Shigella effector OspG during pathogenesis. *EMBO Journal* 33, 437–449.
130. Teller, D.C. C.A. Behnke, K. Pappan, Z. Shen, J.C. Reese, G.R. Reeck and R.E. Stenkamp 2014 The Structure of Rice Weevil Pectin Methyltransferase, *Acta Crystallographica Acta Crystallographica F70*, 1480-1484.
131. Kaminsky, W., R.E. Stenkamp and H. Skubatz. 2015 Crystal and molecular structure of the analgesic tetrapeptide, L-Phe-L-Leu-L-Pro-L-Ser. *Peptide Science*, 104(2), 84-90.
132. Scian, M., I. Le Trong, A.M.A. Mazari, B. Mannervik, W.M. Atkins, and R.E. Stenkamp. 2015 Comparison of Epsilon- and Delta-Class Glutathione S-transferases: The Crystal Structures of

Glutathione S-transferase-E6 and E7 from *Drosophila melanogaster*, *Acta Crystallographica*, D71, 2089-2098.

133. Roberts, A.G., J. Katayama, R. Kaspera, K.V. Ledwitch, I. Le Trong, R.E. Stenkamp, J. Thompson, and R.A. Totah. 2016 The Role of Cytochrome P450 BM3 Phenylalanine-87 and Threonine-268 in Binding Organic Hydroperoxides. *Biochim. Biophys. Acta.*, 1860(4), 669-677.
134. Baugh, L., I. Le Trong, P.S. Stayton, R.E. Stenkamp, and T.P. Lybrand. 2016 A Streptavidin Binding Site Mutation Yields an Unexpected Result: An Ionized Asp128 Residue is Not Essential for Strong Biotin Binding. *Biochemistry*, 55, 5201-5203. PMID:27603565; PMCID:PMC5030189.
135. Stenkamp, R.E. 2018 Identifying G protein-coupled receptor dimers from crystal packings. *Acta Crystallographica*, D74, 655–670. (submitted to bioRxiv, March 18, 2018. BIORXIV/2018/282178)

b. Book Chapters:

1. Steitz, T. A., R. E. Stenkamp, N. Geisler, K. Weber, and J. Finch 1978 X-ray and electron microscopic studies of crystals of native and proteolytically cleaved Lac-repressor protein. *Int. Symp. Biomol. Struct., Conform., Funct., and Evol., Madras*.
2. Stenkamp, R. E. and L. H. Jensen 1979 Hemerythrin and myohemerythrin A review of models based on x-ray crystallographic data. *Advances in Inorganic Biochemistry*, 1, 219-233.
3. Stenkamp, R. E. and L. H. Jensen 1981 Subunit interactions in the metaquo-hemerythrin octamer. in *Structural Aspects of Recognition and Assembly in Biological Macromolecules*, eds. M. Balaban, J. L. Sussman, W. Traub and A. Yonath, 197-212.
4. Sieker, L. C., R. E. Stenkamp and L. H. Jensen 1982 The environment of the binuclear iron coordination complex in methemerythrin. in *The Biological Chemistry of Iron*, eds. B. Dunford, D. Dolphin, K. Raymond and L. Sieker, 161-175.
5. Sieker, L.C., R.E. Stenkamp, L.H. Jensen and J. LeGall. Structure of a small rubredoxin: Tentative assignment of amino acid sequence and three dimensional structure of the rubredoxin from *Desulfovibrio desulfuricans* (strain 27774) 1985 in *Frontiers in Bioinorganic Chemistry*, ed. A.V. Xavier, 631-636.
6. Bishop, P.D., G.W. Lasser, D.C. Teller, I. Le Trong and R.E. Stenkamp 1993 Crystallization and preliminary electron density map for human recombinant factor XIII from *Saccharomyces cerevisiae*. *Factor XIII: Second International Conference - Marburg*, J. McDonagh, R. Seitz, R. Egbring, eds, 102-105.
7. Sieker, L.C., R.E. Stenkamp and J. LeGall 1994 Rubredoxin in the crystalline state. *Inorganic Microbial Sulfur Metabolism, Methods in Enzymology*, Vol. 243, H.D. Peck, Jr, and J. LeGall, editors, 203-216.
8. Stenkamp, R.E. 1994 Low resolution reflections: Phases, finding solvent molecules and refinement. Rubredoxin as a test case. in *Likelihood, Bayesian, inference and Their Application to the Solution of New Structures, Transactions of the American Crystallographic Association*, Vol. 30, G. Bricogne and C.W. Carter, Jr., editors, 131-144.
9. Stenkamp, R.E., A. Aruffo and J. Bajorath 1997 Protein superfamily members as targets for computer modeling: The carbohydrate recognition domain of a macrophage lectin. in "Pacific Symposium on Biocomputing 1997", Eds. R.B. Altman, A.K. Dunker, L. Hunter, T.E. Kline, pp. 432-440, World Scientific Publ., Singapore, 1997.

10. Stayton, P.S., S. Freitag, L.A. Klumb, A. Chilkoti, V. Chu, J.E. Penzotti, R. To, D. Hyre, I. Le Trong, T.P. Lybrand and R.E. Stenkamp 1999 "Streptavidin-Biotin Binding Energetics" *Biomolecular Engineering*, 16, 39-44.
11. Freitag, S., I. Le Trong, L.A. Klumb, V. Chu, A. Chilkoti, P.S. Stayton and R.E. Stenkamp 1999 "X-ray crystallographic studies of streptavidin mutants binding to biotin," *Biomolecular Engineering*, 16, 13-19.
12. Stenkamp, R.E. 2001 Hemerythrin, *Handbook of Metalloproteins*, eds. A. Messerschmidt, R. Huber, K. Wieghardt, T. Poulos, John Wiley & Sons, New York.
13. Filipek, S., R.E. Stenkamp, D.C. Teller and K. Palczewski 2003 "G-protein-coupled Receptor Rhodopsin: A Prospectus," *Ann. Reviews of Physiology*, 65, 851-879.
14. Filipek, S., D.C. Teller, K. Palczewski and R.E. Stenkamp 2003 "The Crystallographic Model of Rhodopsin and Its Use in Studies of Other G-Protein Coupled Receptors," *Annu. Rev. Biophysics and Biomolecular Structure*, 32, 375-397.
15. Teller, D.C., R.E. Stenkamp and K. Palczewski 2003 "Evolutionary analysis of rhodopsin and cone pigments: connecting the three-dimensional structure with spectral tuning and signal transfer," *FEBS Letters*, 555, 151-159.
16. Stenkamp, R.E., D.C. Teller and K. Palczewski 2005 "Rhodopsin: A structural primer for G-protein coupled receptors." *Archiv. der Pharmazie*, 338, 209-216.

c. Published books:

None.

d. Other Publications:

1. Yee, V.C., L.C. Pedersen, P.D. Bishop, R.E. Stenkamp and D.C. Teller 1993 "Crystallographic Study of Recombinant Human Factor XIII." *Stanford Synchrotron Radiation Laboratory Activity Report*, Stanford University, Stanford, CA, 228-229.
2. Le Trong, I., S. Freitag, P. Stayton, R. Garzon, B. Fox, D. Teller and R. Stenkamp 1999 "Crystallography of Protein/Ligand Complexes: Streptavidin and Factor XIII Mutants and Complexes." *Stanford Synchrotron Radiation Laboratory Activity Report*, Stanford University, Stanford, CA.
3. Stenkamp, R.E. 2001 "Protein quaternary structure: symmetry patterns," *Encyclopedia of Life Sciences*, Nature Publishing Group, www.els.net.
4. Bartfai, T., J.L. Benovic, J. Bockaert, R.A. Bond, M. Bouvier, A. Christopoulos, O. Civelli, L.A. Devi, S.R. George, A. Inui, B. Kobilka, R. Leurs, R. Neubig, J.-P. Pin, R. Quirion, B.P. Roques, T.R. Sakmar, R. Seifert, R.E. Stenkamp, and P.G. Strange 2004 "Twenty Questions: The State of GPCR Research in 2004." *Nature Reviews. Drug Discovery*, 3, 575-626.
5. Stenkamp, R.E. 2009 "Protein Quaternary Structure: Symmetry Patterns." In: *ENCYCLOPEDIA OF LIFE SCIENCES*. John Wiley & Sons, Ltd: Chichester <http://www.els.net/> [DOI: 10.1002/9780470015902.a0003121.pub2] (Revision and reissue of paper number 3 above).
6. Stenkamp, R.E. 2014 "Protein Quaternary Structure: Symmetry Patterns." In: *ENCYCLOPEDIA OF LIFE SCIENCES*. John Wiley & Sons, Ltd: Chichester <http://www.els.net/> [DOI: 10.1002/9780470015902.a0003121.pub3] (Revision and reissue of numbers 3 and 5 above).

e. Manuscripts Submitted:

1. Will, W.R., P. Brzovic, I. Le Trong, R.E. Stenkamp, M.B. Lawrenz, W.W. Navarre, K. Main-Hester, V.L. Miller, S.J. Libby and F.C. Fang. "The Evolution of SlyA/RovA Transcription Factors From Repressors to Counter-Silencers in Enterobacteriaceae."

2. Dagmara I. Kisiela, Laura Carlucci, Ronald E. Stenkamp³, Veronika Tchesnokova, Pearl Magala, Anahit Hovhannisyan, Hovhannes Avagyan, Rachel Klevit, Wendy Thomas, Evgeni V. Sokurenko. Conformational stabilization eliminates mannose recognition by the FimH adhesin of *Escherichia coli*