

Curriculum Vitae

P. RAJ POKKULURI
Biosciences Division
Argonne National Laboratory
Argonne, IL 60439, U.S.A.
E-mail: rajp@anl.gov

EDUCATION

1991	Ph.D. Chemistry	University of British Columbia, Vancouver, Canada
1987	M.Sc. Chemistry	University of British Columbia, Vancouver, Canada
1984	M.Sc. Chemistry	Indian Institute of Technology, Kanpur, India
1982	B.Sc. Chemistry (main) Math, Physics (ancillaries)	Nagarjuna University, India

PROFESSIONAL EXPERIENCE

8/04-Present	Biophysicist, Biosciences division, Argonne National Laboratory, Argonne, IL
7/99-7/04	Assistant Biophysicist, Biosciences division, Argonne National Laboratory, Argonne, IL
1994-6/99	Post doctoral research fellow, Biosciences division, Argonne National Laboratory, Argonne, IL
1991-1993	Research Associate at National Research Council's Biotechnology Research Institute, Montreal, Canada
1985-1990	Graduate Research, Department of Chemistry, University of British Columbia, Vancouver, Canada

PUBLICATIONS AND PRESENTATIONS

Peer reviewed publications (in reverse chronological order)

62. P.R.Pokkuluri, X.Yang, Y.Y.Londer, M. Schiffer. Pitfalls in the interpretation of structural changes in mutant proteins from crystal structures. *J. Struct. Funct. Genomics*, 13, 227-232 (2012).
61. L. Morgado, J.M. Dantas, T. Simões, Y.Y. Londer, P. Raj Pokkuluri, C.A. Salgueiro. Role of methionine 58 in the regulation of electron/proton transfer in triheme cytochrome PpcA from *Geobacter sulfurreducens*. *Bioscience Reports*, in press.
60. L. Morgado, V.B. Paixão, M. Schiffer, **P.R. Pokkuluri**, M. Bruix, C.A. Salgueiro. Revealing the structural origin of the redox-Bohr effect: the first solution structure of a cytochrome from *Geobacter sulfurreducens*. *Biochem J.* 441, 179-187 (2012).
59. J.M. Dantas, L. Morgado, Y.Y. Londer, A.P. Fernandes, R.O. Louro, **P.R. Pokkuluri**, M. Schiffer, C.A. Salgueiro. Pivotal role of the strictly conserved aromatic residue F15 in the cytochrome *c*₇ family. *J. Biol. Inorg. Chem.*, 17, 11-24 (2012).

58. P.R.Pokkuluri, N. E. C. Duke, S. J. Wood, M. A. Cotta, X.-L. Li, P. Biely, M. Schiffer. Structure of the catalytic domain of glucuronoyl esterase Cip2 from *Hypocrea jecorina*. *Proteins*, 79, 2588-2592 (2011).
57. F. DiMaio, T.C. Terwilliger, R.R. Read, A. Wlodawer, G. Oberdorfer, U. Wagner, E. Valkov, A. Alon, D. Fass, H.L. Axelrod, D. Das, S.M. Vorobiev, H. Iwai, **P.R. Pokkuluri**, D. Baker. Increasing the radius of convergence of molecular replacement by density and energy guided protein structure optimization. *Nature*, 473, 540-543 (2011).
56. **P. R. Pokkuluri**, Y.Y. Londer, N.E.C. Duke, M. Pessanha, X. Yang, V. Orshonsky, L. Orshonsky, J. Erickson, Y. Zagynaskiy, C. A. Salgueiro, M. Schiffer. Structure of a novel dodecaheme cytochrome *c* from *Geobacter sulfurreducens* reveals an extended 12 nm protein with interacting hemes. *J. Struct. Biol.*, 174, 223-233 (2011).
55. T. Catarino, M. Pessanha, A. De Candia, Z. Gouveia, A. P. Fernandes, **P. R. Pokkuluri**, D. Murgida, M.A. Marti, S. Todorovic, C.A. Salgueiro. Probing the chemotaxis periplasmic sensor domains from *Geobacter sulfurreducens* by combined resonance raman and molecular dynamic approaches: NO and CO sensing. *J. Phys. Chem. B*, 114, 11251-11260 (2010).
54. C. Chang, C. Tesar, M. Gu, G. Babbnigg, A. Joachimiak, **P. R. Pokkuluri**, H. Szurmant, and M. Schiffer. Extracytoplasmic PAS-like domains are common in signal transduction proteins. *J. Bacteriol.*, 192, 1156-1159 (2010).
53. **P. R. Pokkuluri**, Y. Y. Londer, X. Yang, N. E. C. Duke, J. Erickson, V. Orshonsky, G. Johnson, and M. Schiffer. Structural characterization of a family of cytochromes *c*₇ involved in Fe(III) respiration by *Geobacter sulfurreducens*. *Biochim. Biophys. Acta Bioenergetics*, 1797, 222-232 (2010).
52. L. Morgado, A.P. Fernandes, Y.Y.Londer, **P.R.Pokkuluri**, M. Schiffer. Thermodynamic characterization of the redox centres in a representative domain of a novel *c*-type multihaem cytochrome. *Biochem. J.* (2009), 420, 485-492 (2009).
51. **P.R.Pokkuluri**, Y. Y. Londer, S. J. Wood, N. E. C. Duke, L. Morgado, C. A. Salgueiro, M. Schiffer. Outer-membrane cytochrome-*c*, OmcF, from *Geobacter sulfurreducens*: High Structural Similarity to an Algal Cytochrome *c*₆. *Proteins: Struct. Funct. Bioinform.* 266-270 (2009).
50. L. Morgado, M. Bruix, V. Orshonsky, Y. Y. Londer, N. E.C. Duke X. Yang, **P.R. Pokkuluri**, M. Schiffer, C.A. Salgueiro. Structural insights into the modulation of the redox properties of two *Geobacter sulfurreducens* homologous triheme cytochromes. *Biochim. Biophys. Acta Bioenergetics*, 1777, 1157-1165 (2008).
49. S. J. Wood, X.-L. Li, M. A. Cotta, P. Biely, N. E. C. Duke, M. Schiffer and **P. R. Pokkuluri**. Crystallization and preliminary X-ray diffraction analysis of the glucuronoyl esterase catalytic domain from *Hypocrea jecorina*. *Acta Cryst. F*64, 255-257(2008).
48. **P.R. Pokkuluri**, M. Pessanha, Y.Y. Londer, S.J. Wood, N.E.C. Duke, R. Wilton, T. Catarino, C.A. Salgueiro, M. Schiffer. Structures and Solution Properties of Two Novel

Periplasmic Sensor Domains with c-Type Heme from Chemotaxis Proteins of *Geobacter sulfurreducens*: Implications for Signal Transduction. *J. Mol. Biol.* 377, 1498-1517 (2008).

47. L. Morgado, M. Bruix, Y.Y.Londer, **P.R.Pokkuluri**, M.Schiffer, C.A.Salgueiro. Redox-linked conformational changes of a multiheme cytochrome from *Geobacter sulfurreducens*. *Biochem. Biophys. Res. Commun.* 360, 194-198 (2007).
46. M. Pessanha, L. Morgado, R.O.Louro, Y.Y.Londer, **P.R.Pokkuluri**, M.Schiffer, C.A.Salgueiro. Thermodynamic characterization of triheme cytochrome PpcA from *Geobacter sulfurreducens*: evidence for a role played in e⁻/H⁺ energy transduction. *Biochemistry*, 45, 13910-13917 (2006).
45. Y.Y.Londer, I. S. Dementieva, C. A. D'Ausilio, **P. R. Pokkuluri**, M. Schiffer. Characterization of a c-type heme containing PAS sensor domain from *Geobacter sulfurreducens* representing a novel family of periplasmic sensors in *Geobacteraceae* and other bacteria. *FEMS Microbiol. Lett.* 258, 173-181 (2006).
44. Y. Y.Londer, **P. R.Pokkuluri**, V.Orshonsky, L.Orshonsky, M.Schiffer. Heterologous expression of dodecaheme "nanowire" cytochromes c from *Geobacter sulfurreducens*. *Protein Express. Purifi.*, 47, 241-248 (2006).
43. **P.R.Pokkuluri**, D.K.Hanson, P.D.Laible, S.L.Ginell, G.Johnson, M.Schiffer. Structural descriptions of compensatory mutations that restore proton transfer pathways to the L212Ala-L213Ala mutant bacterial reaction center. In *Photosynthesis: Fundamental Aspects to Global Perspectives*, Eds. A. van der Est and D. Bruce, Alliance Communications Group, Lawrence, Kansas (2005) pp 272-274.
42. Y. Y.Londer, **P. R.Pokkuluri**, J.Erickson, V.Orshonsky, M.Schiffer. Heterologous expression of hexaheme fragments of a multidomain cytochrome from *Geobacter sulfurreducens* representing a novel class of cytochromes c. *Protein Express. Purifi.* 39, 254-260 (2005).
41. M. Pessanha, Y.Y.Londer, W.C.Long, J.Erickson, **P.R.Pokkuluri**, M.Schiffer, C.A.Salgueiro. Redox characterization of *Geobacter sulfurreducens* cytochrome c₇: Physiological relevance of the conserved residue F15 probed by site-specific mutagenesis. *Biochemistry*, 43, 9909-9917(2004).
40. **P.R.Pokkuluri**, P.D.Laible, A.E.Crawford, J.F.Mayfield, M.A.Yousef, S.L.Ginell, D.K.Hanson, M.Schiffer. Temperature and cryoprotectant influence secondary quinone binding position in bacterial reaction centers. *FEBS Letters*, 570, 171 – 174 (2004).
39. Y.Y.Londer, **P.R.Pokkuluri**, M.Schiffer. Functional expression of multiheme cytochromes c in *E. coli*, *PharmaGenomics* 4, 24 – 30 (2004).
38. **P.R.Pokkuluri**, Y.Y.Londer, N.E.C.Duke, J.Erickson, M.Pessanha, C.A.Salgueiro, M.Schiffer. Structure of a novel c₇-type three-heme cytochrome domain from a multi-domain cytochrome c polymer. *Prot. Sci.*, 13, 1684-1692 (2004).

37. **P.R.Pokkuluri**, Y.Y.Londer, N.E.C.Duke, W.C.Long, M.Schiffer. Family of cytochrome c_7 -type proteins from *Geobacter sulfurreducens*: Structure of one cytochrome c_7 at 1.45 Å resolution. *Biochemistry* 43, 849-859 (2004).
36. Z.S.Morris, D.K.Hanson, **P.R.Pokkuluri**, D.G.Mets, A.N.Hata, O.G.Poluektov, M.C.Thurnauer, M.Schiffer, P.D.Laible. Lysine substitutions near photoactive cofactors in the bacterial photosynthetic reaction center have opposite effects on the rate of triplet energy transfer. *Chem. Phys.* 294, 329-346 (2003).
35. **P.R.Pokkuluri**, M. Gu, X. Cai, R. Raffen, F.J. Stevens, M. Schiffer. Factors contributing to decreased protein stability when aspartic acid residues are in beta-sheet regions. *Prot. Sci.* 11, 1687-1694 (2002).
34. **P.R.Pokkuluri**, P.D. Laible, Y.-L. Deng, T.N. Wong, D.K. Hanson, M. Schiffer. The structure of a mutant photosynthetic reaction center shows unexpected changes in main chain orientations and quinone position. *Biochemistry* 41, 5998-6007 (2002).
33. **P.R.Pokkuluri**, R.Raffen, L. Dieckman, C. Boogaard, F.J. Stevens, M. Schiffer. Increasing protein stability by polar surface residues: domain-wide consequences of interactions within a loop. *Biophysical J.* 82:391-398 (2002).
32. Y.Y.Londer, **P.R.Pokkuluri**, D.Tiede, M.Schiffer. Production and preliminary characterization of a recombinant triheme cytochrome c_7 from *Geobacter sulfurreducens* in *Escherichia coli*. *Biochim. Biophys. Acta. Bioenergetics*, 1554, 202-211 (2002).
31. F.J.Stevens, **P.R. Pokkuluri**, M. Schiffer. Protein conformation and disease: Pathological consequences of analogous mutations in homologous proteins. *Biochemistry* 39, 15291-15296 (2000).
30. **P.R. Pokkuluri**, X. Cai, F.J. Stevens, M. Schiffer. Change in dimerization mode by removal of a single unsatisfied polar residue located at the interface. *Prot. Sci.* 9, 1852-1855 (2000).
29. **P.R.Pokkuluri**, A.Solomon, D.T.Weiss, F.J.Stevens, M.Schiffer. Tertiary Structure of Human Lambda-6 light chains. *Amyloid*, 6, 165-171 (1999).
28. R.Raffen, L.Dieckman, M.Szpunar, C.Wunschl, **P.R.Pokkuluri**, P.Dave, P. Wilkins Stevens, M.Schiffer, F.J.Stevens. Physicochemical Consequences of Amino Acid Variations that Contribute to Fibril Formation by Immunoglobulin Light Chains. *Prot. Sci.* 8, 509-517 (1999).
27. **P.R.Pokkuluri**, D-B.Huang, R.Raffen, X.Cai, G.Johnson, F.J.Stevens, M.Schiffer. A Domain Flip as a Result of a Single Amino-acid Substitution. *Structure* 6, 1067-1073 (1998).
26. K.Rajagopalan, G.Pavlinkova, S.Levy, **P.R.Pokkuluri**, M.Schiffer, B.E.Haley, H.Kohler. Novel Unconventional Binding Site in the Variable Region of Immunoglobulins. *Proc. Natl. Acad. Sci. U.S.A.* 93, 6019-6024 (1996).

25. **P.R.Pokkuluri**, F.Bouthillier, Y.Li, A.Kuderova, J.Lee, M.Cybler. Preparation, Characterization of an Antibody Fab Fragment that Recognizes RNA: Structures of Native Fab and Three Fab-Mononucleotide Complexes. *J. Mol. Biol.* 243, 283-297(1994).
24. **P.R.Pokkuluri**, J.R.Scheffer, J.Trotter. 2-Propyl 12-carboxy-9,10-dihydro-9,10-ethenoanthracene-11-carboxylate. *Acta Cryst.* C50, 922-924 (1994).
23. **P.R.Pokkuluri**, J.R.Scheffer, J.Trotter. The Photolysis Product of Dimethyl 9,10-Diphenyl-1,4-dihydro-1,4-ethenoanthracene-11,12-dicarboxylate. *Acta Cryst.* C50, 581-583 (1994).
22. **P.R.Pokkuluri**, J.R.Scheffer, J.Trotter, M. Yap. An Ethenonaphthalene and one of its Photolysis Products. *Acta Cryst.* C50, 578-581 (1994).
21. J.Chen, **P.R.Pokkuluri**, J.R.Scheffer, J.Trotter. 12-Methyl 9-Hydroxymethyl-9,10-dihydro-9,10-ethenoanthracene-11,12-dicarboxylate Lactone. *Acta Cryst.* C50, 576-578 (1994).
20. **P.R.Pokkuluri**, J.R.Scheffer, J.Trotter. Dimethyl 9-Phenyl-1,4-dihydro-1,4-ethenoanthracene-11,12-dicarboxylate. *Acta Cryst.* C50, 415-417 (1994).
19. **P.R.Pokkuluri**, J.Trotter. Structure of a Cyclopropapentalene Photolysis Product of a Dibenzobarrelene Ester Lactone. *Acta Cryst.* C50, 281-283 (1994).
18. **P.R.Pokkuluri**, J.Trotter. Dimethyl 9-[(S)-(-)-N-Acetylalanyloxy]methyl-9,10-dihydro-9,10-ethenoanthracene-11,12-dicarboxylate. *Acta Cryst.* C50, 276-278 (1994).
17. J.Chen, **P.R.Pokkuluri**, J.R.Scheffer, J.Trotter. Structure of Dimethyl 9-Formyl-9,10-dihydro-9,10-ethenoanthracene-11,12-dicarboxylate. *Acta Cryst.* C49, 2018-2019 (1993).
16. **P.R.Pokkuluri**, J.R.Scheffer, J.Trotter. Crystal Structure and Photochemistry of Dimethyl 9,10-Dichloro-9,10-dihydro-9,10-ethenoanthracene-11,12-dicarboxylate. *Acta Cryst.* C49, 2014-2018 (1993).
15. **P.R.Pokkuluri** and J.Trotter. Structure of Dimethyl 9-Methyl-9,10-dihydro-9,10-ethenoanthracene-11,12-dicarboxylate. *Acta Cryst.* C49, 971-973 (1993).
14. **P.R.Pokkuluri**, J.R.Scheffer, J.Trotter. Cyclooctatetraene Formation in the Photolyses of Dibenzobarrelene Diesters. *Acta Cryst.* B49, 1049-1052 (1993).
13. J.Chen, **P.R.Pokkuluri**, J.R.Scheffer, J.Trotter. Crystal Structure Correlations in the Photochemistry of Dimethyl 9-Chloromethyl-9,10-dihydro-9,10-ethenoanthracene-11,12-dicarboxylate. *Acta Cryst.* B49, 905-909 (1993).
12. **P.R.Pokkuluri**, J.R.Scheffer, J.Trotter. Crystal Structure Correlations in the Photochemistry of Dimethyl 9-Phenyl-9,10-dihydro-9,10-ethenoanthracene-11,12-dicarboxylate. *Acta Cryst.* B49, 754-760 (1993).
11. **P.R.Pokkuluri**, J.R.Scheffer, J.Trotter. Crystal Structure Correlations in the Photochemistry of Dimethyl 9,10-dimethyl-9,10-dihydro-9,10-ethenoanthracene-11,12-dicarboxylate. *Acta Cryst.* B49, 107-116 (1993).

10. J.Chen, **P.R.Pokkuluri**, J.R.Scheffer, J.Trotter. Control of Regioselectivity Through Relief of Steric Crowding in the Di-pi-Methane Photorearrangement of 9,10-ethenoanthracene Derivatives. *Tetrahedron Lett.* 33, 1535-1538 (1992).
9. **P.R.Pokkuluri**, J.R.Scheffer, J.Trotter, M.Yap. Selective Solid State Photorearrangement through the Less Stable of Two Possible Biradical Intermediates. *J. Org. Chem.* 57, 1486-1494 (1992).
8. J.Chen, **P.R.Pokkuluri**, J.R.Scheffer, J.Trotter. The Novel Solid State and Solution Phase Photochemistry of Dimethyl 9-chloromethyl-9,10-dihydro-9,10-ethenoanthracene-11,12-dicarboxylate. *J. Photochem. Photobiol. A: Chem.* 57, 21-26 (1991).
7. J.Chen, **P.R.Pokkuluri**, J.R.Scheffer, J.Trotter. Absolute Asymmetric Induction Differences in Dual Pathway Photoreactions. *Tetrahedron Lett.* 31, 6803-6806 (1990).
6. **P.R.Pokkuluri**, J.R.Scheffer, J.Trotter. Novel Photorearrangements of Bridgehead Substituted Dibenzobarrelene Derivatives in Solution and the Solid State. *J. Am. Chem. Soc.* 3676-3677 (1990).
5. **P.R.Pokkuluri**, J.R.Scheffer, J.Trotter. Surface Versus Bulk Reactivity in Solid State Organic Chemistry. *Tetrahedron Lett.* 30, 1601-1604 (1989).
4. M.Krishnamurthy, **P.Phaniraj**, S.K.Dogra. Absorptiometric and Fluorimetric Study of Solvent Dependence and Prototropism of Benzimidazole Homologues *J. Chem. Soc. Perkin Trans. 2*, 1917-1925 (1986).
3. **P.Phaniraj**, H.K.Sinha, S.K.Dogra. Ionization Equilibria and Electronic Spectroscopy of 5-Hydroxy indole-2-carboxylic acid. *J. Photochem.* 34, 209-218 (1986).
2. **P.Phaniraj**, M.Krishnamurthy, S.K.Dogra. Absorption and Fluorescence Spectra of p-(Imidazol-1-yl)phenol. Study of Solvent Dependence & Determination of Acidity Constants. *Indian J. Chem.* 25A, 513-516 (1986).
1. **P.Phaniraj**, A.K.Mishra, S.K.Dogra. Absorption and Fluorescence Spectra of 7-Aminoindazole: Study of Solvent & Ph Dependences. *Indian J. Chem.* 24A, 913-917 (1985).

INVITED BOOK CHAPTER

1. J.R.Scheffer, **P.R.Pokkuluri**. Unimolecular Photoreactions of Organic Crystals. The Medium is the message. In *Photochemistry in Organized & Constrained Media*, Ed. V.Ramamurthy, VCH publishers, New York (1991), pp 185-246.

CONFERENCE POSTERS (Name of the presenter is underlined)

1. **P.R.Pokkuluri**, F.Bouthillier, Y.Li, A.Kuderova, J.S.Lee, M.Cygler. Crystal structures of anti-RNA antibody Fab fragment and Fab-mononucleotide complexes. American Crystallographic Association Annual Meeting, Atlanta, Georgia, June 25 – July 1, 1994.
2. **P.R.Pokkuluri**, D.-B.Huang, R.Raffen, P.Wilkins-Stevens, F.J.Stevens, M.Schiffer. How do metal ions help (promote) the formation of protein crystals? American Crystallographic Association Annual Meeting, St.Louis, Missouri, July 19 – 25, 1997.
3. M.Schiffer, D.-B.Huang, R.Raffen, **P.R.Pokkuluri**, P.Wilkins-Stevens, F.J.Stevens. Major unexpected effect of a Gln to Glu substitution on a dimer interface. Gordon Research Conference on Proteins, Holderness, New Hampshire, June 15 – 20, 1997.
4. R.Raffen, L.Dieckman, P.Wilkins-Stevens, **P.R.Pokkuluri**, M.Schiffer, F.J.Stevens. Characterizing primary structural determinants of immunoglobulin light chain amyloidosis with recombinant light chain variable domains. FASEB Summer Research Conference: Amyloid and other Abnormal Protein Assembly, Copper Mt., Colorado, July 13 – 18, 1997.
5. M.Schiffer, **P.R.Pokkuluri**, X.Cai, G.Johnson, R. Raffen, F.J.Stevens. A single amino acid substitution changes the mode of dimerization. Third Annual Structural Biology Symposium, Galveston, Texas, April 3 – 5, 1998.
6. **P.R.Pokkuluri**, X.Cai, G.Johnson, L.Dieckman, F.J.Stevens, M.Schiffer. A domain flip as a result of a single amino acid substitution. American Crystallographic Association Annual Meeting, Arlington, Virginia, July 18 – 23, 1998.
7. **P.R.Pokkuluri**, X.Cai, G.Johnson, R. Raffen, F.J.Stevens, M.Schiffer. A domain flip as a result of a single amino acid substitution. 6th International Conference on Biophysics & Synchotron Radiation, Argonne, Illinois, August 4 – 8, 1998.
8. R.Raffen, **P.R.Pokkuluri**, P.Wilkins-Stevens, M.Schiffer, F.J.Stevens. Characterization of immunoglobulin light chain amyloidosis by site-directed mutagenesis. 12th Symposium of the Protein Society, San Diego, California, July 25 – 29, 1998.
9. F.J.Stevens, R.Raffen, L.Dieckman, M.Szpunar, **P.R.Pokkuluri**, P.Wilkins-Stevens, M.Schiffer. Characterization of immunoglobulin light chain pathogenic aggregation and amyloidosis by site-directed mutagenesis. 4th Annual Midwest Stress Response and Chaperone meeting, January 16, 1999.
10. M.Schiffer, **P.R.Pokkuluri**, R.Raffen, X.Cai, G.Johnson, , F.J.Stevens. Alteration of dimerization mode by single amino acid substitutions. 13th Symposium of the Protein Society, Boston, Massachussetts, July 24 – 28, 1999.
11. B.C.Wang, C.-J.Chen, Z.-J.Liu, C.K.Wu, F.D.Schubot, G.Rosenbaum, E.S.Vysotski, J.Lee, H.A.Dailey, J.Ferrara, M.Schiffer, **P.R.Pokkuluri**, A.Joachimiak, R.Zhang, A.Howard, J.Chras, A.H.Robbins, and J.P.Rose. SAS Phasing: A powerful tool for protein crystal structure determination is maturing. American Crystallographic Association Annual Meeting, St. Paul, Minnesota, July 22 – 27, 2000.

12. **P.R.Pokkuluri**, P.D.Laible, A.N.Hata, T.N.Wong, S.Ginell, D.K.Hanson, M.Schiffer. Structure of L181F → K mutant reaction center from *Rhodobacter sphaeroides*. The Eleventh Users Meeting for the APS, Argonne, Illinois, October 9 – 11, 2001.
13. **Y.Y. Londer, P.R.Pokkuluri**, M.Schiffer. Production and initial characterization of cytochrome *c*₇ from *Geobacter sulfurreducens*. Genome9, January 28-31, 2002, Oakland, California.
14. **P.R.Pokkuluri**, Y.Y.Londer, N.Duke, W.C.Long, M.Schiffer. The structure of a three heme cytochrome *c*₇ from *Geobacter sulfurreducens*. Gordon Research Conference on Diffraction Methods in Structural Biology, New London, Connecticut, July 14 – 19, 2002.
15. Y.Londer, **P.R.Pokkuluri**, J.Erickson, M.Schiffer. Studies of multi-heme cytochromes from *Geobacter sulfurreducens*. NABIR PI meeting, Warrenton, Virginia, March 17 – 19, 2003.
16. **P.R.Pokkuluri**, P.D.Laible, A.Crawford, S.J.Hofman, M.Yousef, D.K.Hanson, M.Schiffer. Q_B position in the crystals of reaction center from *Rhodobacter sphaeroides*. Gordon Research Conference on Photosynthesis, Bristol, Rhode Island, June 22 – 27, 2003.
17. Y.Londer, **P.R.Pokkuluri**, J.Erickson, M.Schiffer. Studies of multi-heme cytochromes from *Geobacter sulfurreducens*. Gordon Research Conference on Proteins, New Hampshire, June 22-27, 2003.
18. **P.R.Pokkuluri**, Y.Y.Londer, N.Duke, J.Erickson, M.Schiffer. Structure of a novel *c*₇-type three-heme cytochrome domain from a multi-heme cytochrome *c*. American Crystallographic Association annual meeting, Cincinnati, Ohio, July 26 – 31, 2003.
19. **Y.Y.Londer, P.R.Pokkuluri**, J.Erickson, N.Duke, M.Schiffer. “Nano wire” polymeric cytochromes *c* consisting of *c*₇-type domains: putative new class. 17th Symposium of the Protein Society, Boston, Massachusetts, July 26-29, 2003.
20. Y.Y.Londer, **P.R.Pokkuluri**, V.Orshonsky, M.Schiffer. Studies of multi-heme cytochromes from *Geobacter sulfurreducens*. NABIR PI meeting, Warrenton, Virginia, March 15 – 17, 2004.
21. **P.R.Pokkuluri**, Y.Y. Londer, X. Yang, N.E.C.Duke, G.Johnson, J.Erickson, V.Orshonsky and M.Schiffer. Structure determination of a family of cytochromes *c*₇ from a metal-reducing organism *G. sulfurreducens*. 2004 Users meeting for the Advanced Photon Source, Argonne, Illinois, May 3 – 6, 2004.
22. **P.R.Pokkuluri**, Y.Y. Londer, X. Yang, N.E.C.Duke, G.Johnson, J.Erickson, V.Orshonsky and M.Schiffer. Structural studies of homologous cytochromes *c*₇ involved in Fe(III) reduction by *G. sulfurreducens*. Annual meeting of the American Crystallographic Association, Chicago, Illinois, July 17 – 22, 2004.
23. **P.R.Pokkuluri**, D.K.Hanson, P.D.Laible, S.Ginell, G.Johnsons and M.Schiffer. Structural Description of Reaction Center Mutants that Restore Proton Transfer to the L212Ala-L213Ala Double Mutant. International Congress on Photosynthesis, Montreal, Canada, August 29 – September 3, 2004.

24. **P.R.Pokkuluri**, Y.Y.Londer, V. Orshonsky, L.Orshonsky, N. Duke, M.Schiffer. Studies of multi-heme cytochromes from *Geobacter sulfurreducens*. NABIR PIs meeting, Virginia, April 2005.
25. **Y.Y.Londer**, **P.R.Pokkuluri**, L.Orshonsky, V.Orshonsky, Y.Zagyansky, M.Schiffer. Cloning, purification and structures of multiheme multidomain cytochromes c from *Geobacter sulfurreducens* representing a novel class of cytochromes. 19th Symposium of the Protein Society, Boston, Massachusetts, July 30 – August 3, 2005.
26. **Y.Y.Londer**, C.A.D'Ausilio, **P.R.Pokkuluri**, I.Dementieva, M.Schiffer. Characterization of a c-type heme containing PAS sensor domain from *Geobacter sulfurreducens* representing a novel family of periplasmic sensors in *Geobacteraceae* and other bacteria. 106th General meeting of the American Society for Microbiology, Orlando, Florida, May 21 – 25, 2006.
27. **P.R.Pokkuluri**, Y.Y.Londer, N.Duke, S.J.Wood, M. Pessanha, T.Catarino, C.A.Salgueiro, **M.Schiffer**. Structural and functional characterization of a periplasmic sensor domain from *Geobacter sulfurreducens* chemotaxis protein: A novel structure from a family of sensors in *Geobacteraceae*. Joint Genomics: GTL Awardee Workshop V and Metabolic Engineering 2007 and USDA-DOE Plant Feedstock Genomics for Bioenergy Awardee Workshop 2007 North Bethesda, Maryland, February 11 – 14, 2007.
28. **P.R.Pokkuluri**, Y.Y. Londer, N. Duke, S. J. Wood, M. Pessanha, T. Catarino, C.A. Salgueiro, **M. Schiffer**. Structural and Functional Characterization of a c-Type Heme Containing PAS Sensor Domain from a *Geobacter sulfurreducens* Chemotaxis Protein. American Society for Microbiology 107th General Meeting. Toronto, Canada, May 21-25, 2007.
29. **P.R.Pokkuluri**, Y.Y.Londer, N.Duke, S.J.Wood, M.Schiffer. Two Periplasmic Sensor Domains with c-type Heme from Chemotaxis Proteins of *G. sulfurreducens* show PAS fold and form helix-swapped dimers. Annual meeting of the American Crystallographic Association, Salt Lake City, Utah, July 21 – 26, 2007.
30. **P. R. Pokkuluri**, Y.Y. Londer, N. Duke, S. Wood, M. Pessanha, L. Morgado, T. Catarino, C. A. Salgueiro, **M. Schiffer**. Structural Characterization of *Geobacter sulfurreducens* Heme Proteins: Two Novel Periplasmic Sensor Domains from Chemotaxis Proteins and the Soluble Part of a Membrane Protein, OmcF. Genomics:GTL Awardee meeting, North Bethesda Maryland, February 10-13, 2008.
31. **P. R. Pokkuluri**, Y.Y. Londer, N. Duke, M. Pessanha, L. Morgado, A. P. Fernandes, C. A. Salgueiro, **M. Schiffer**. Structures and redox potentials of periplasmic cytochromes from *Geobacter sulfurreducens*. Joint meeting of Genomics:GTL Awardee Workshop VII and USDA-DOE Plant Feedstock Genomics for Bioenergy Awardee Workshop 2009, North Bethesda, Maryland, February 8-11, 2009.
32. **P. R. Pokkuluri**, H. Szurmant, A. Joachimiak, **M. Schiffer**. Periplasmic/extracytoplasmic sensor domains of microbial two component transmembrane signal transduction and

chemotaxis proteins. 2010 Genomic science contractor-grantee and knowledgebase workshop, Arlington, Virginia, February 7-10, 2010.

33. **P.R.Pokkuluri**, S.J.Wood, N. Duke, M. Cotta, X.-L.Li, P. Biely, M.Schiffer. Structure of the catalytic domain of glucuronoyl esterase from *Hypocrea jecorina*. Annual meeting of the American Crystallographic Association, Chicago, Illinois, July 25 – 29, 2010.