

CURRICULUM VITAE
OF
JAROSLAVA MIKSOVSKA
DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY

EDUCATION

Postdoctoral Fellow	University of South Florida	Biophysics	2002-2004
Postdoctoral Fellow	University of Hawaii, Manoa	Biophysics	2000-2001
PhD	University of Paris XI, Orsay	Enzymology	1995-1998
M.S.	University of Paris XI, Orsay	Enzymology	1994-1995
M.S.	Charles University, Prague	Biochemistry	1989-1994

FULL-TIME ACADEMIC EXPERIENCE

Florida International University	Associate Professor	Chemistry	since 08/2012
Florida International University	Assistant Professor	Chemistry	08/2007- 07/2012
Marshall University	Assistant Professor	Chemistry	08/2004-07/2007

PUBLICATIONS IN DISCIPLINE (graduate student names in bold, undergraduate students name underlined)

Articles

1. Gu, M., Berrido, A., **Gonzalez, W.**, Miksovska, J., Chambers, J., and Fenfei Leng (2016) Fluorescently labeled circular DNA molecules for DNA topology and topoisomerases. *Scientific Reviews*, 6: 36006.
2. Kavooosi, S., Rayala, R., Walsh, B., Barrios, M., **Gonzalez W.G.**, Miksovska, J., Mathivathanan, L., Raptis, R., Wnuk S. F. (2016) Synthesis of 8-(1,2,3-triazol-1-yl)-7-deazapurine nucleosides by azide-alkyne click reactions and direct C-H bond functionalization. *Tetrahedron Lett.* 57 4364–4367.
3. **Butcher, D.**, Bernad S., Derrien, V., Sebban P., Miksovska J*. (2016) Ligand migration in rice hemoglobin J. *Phys. Chem B. in print*
4. Garabedian A.; **Butcher D.**; Lippens J.L; Miksovska J.; Chapagain P.; Fabris D.; Ridgeway M.E, Park M.A, Fernandez-Lima A* (2016) Structures of the kinetically trapped i-motif DNA intermediates. *Analyst, Chem Phys Phys Chem*, 18, 26691-26702.
5. **Pham K.** and Miksovska J*. (2016) “Molecular insight of DREAM and presenilin 1 C-terminal fragment interactions” *FEBS Lett* 590: 1114-1122
6. **Gonzalez, W.G.**, Ramos, V., Diaz M., Garabedian, A., Molano, C., Fernandez-Lima F., Miksovska, J.* (2016) “Characterization of the photophysical, thermodynamic and structural properties of the terbium(III)-DREAM complex” *Biochemistry*, 55(12):1873-86
7. Tiwari P., **Astudillo L.**, **Pham K.**, Wang X., He, J., Bernad S., Derrien, V., Sebban P., Miksovska, J*, and Darici Y*. (2015) Characterization of molecular mechanism of neuroglobin binding to cytochrome c: A surface plasmon resonance and isothermal titration calorimetry study. *Inorg. Chem. Com.* 62: 37-41.
8. **Gonzalez, WG**, Arango AS, Miksovska J.* (2015) Amphiphilic residues 29-44 of DREAM N-termini mediate the calmodulin:DREAM complex formation. *Biochemistry* 54(28):4391-403.
- 9 Zayas J., Annoual M., Kumar Das J., Felty Q., **Gonzalez W.G.**, Miksovska J., Sharifai N., Chiba A., Wnuk S.F.* (2015) Strain Promoted Click Chemistry of 2- or 8-Azidopurine and 5-Azidopyrimidine Nucleosides and 8-Azidoadenosine Triphosphate with Cyclooctynes. Application to Living Cell Fluorescent Imaging. *Bioconjug. Chem.* 26(8):1519-32.

- 10 Liu H., Lantz R, Cosme P, Rivera N, Andino C, **Gonzalez WG**, Terentis AC, Wojcikiewicz EP, Oyola R. Miksovska J and Du D.* (2015) Site-Specific Dynamics of Amyloid Formation and Fibrillar Configuration of A β 1-23 Using an Unnatural Amino Acid" Chem. Com. 51(32):7000-3.
- 11 Schenk ER, Almeida R, Miksovska J, Ridgeway ME, Park MA, Fernandez-Lima F*. (2015) Kinetic Intermediates of Holo- and Apo-Myoglobin Studied Using HDX-TIMS-MS and Molecular Dynamic Simulations. J. Am Soc Mass Spectrom. 26(4):555-63.
- 12 **Pham, K., Gonzalez W.G.**, Bernard S. Gerstman, B.S, Regmi C., Chapagain, P.P. and Miksovska J.* (2015) Ca²⁺ and Mg²⁺ modulate conformational dynamics and stability of Downstream Regulatory Element Antagonist Modulator. Prot. Sci. J. 24(5):741-51
- 13 Molano-Arevalo JC, Hernandez DR, **Gonzalez WG**, Miksovska J, Ridgeway ME, Park MA, Fernandez-Lima F*. (2014) Flavin adenine dinucleotide structural motifs: from solution to gas phase. Anal Chem. 86(20):10223-30
- 14 Tiwari, P.B., **Astudillo L.**, Miksovska, J. XW Wang X.W., Li W.Z., Darici Y*., He J.* (2014) "Quantitative Study of Protein-Protein Interaction by Quartz Nanopipettes" Nanoscale, 6(17):10255-63.
- 15 **Gonzalez, W. G., Pham, K.** and Miksovska J.* (2014) Modulation of the voltage gated potassium channel (Kv4.3) and the auxiliary protein (KChIP3) interactions by the current activator NS5806. J. Biol. Chem. 289(46):32201-13.
- 16 Dhuguru J., Liu W., **Gonzalez W.G.**, Babinchak, M., Miksovska, J., Landgraf, R. and Wilson, J*. (2014) J. Org. Chem. 79(11):4940-7.
- 17 Gonzalez, W. G. and Miksovska J.* (2014) "Application of ANS fluorescent probes to identify hydrophobic sites on the surface of DREAM" Biochim. Biophys. Acta, 1844(9):1472-80
- 18 **Gonzalez, W. G.** and Miksovska J*. (2014) "Sub-millisecond conformational changes in proteins resolved by photothermal beam deflection" JoVe J Vis Exp. 2014 Feb 18;(84):e50969. doi: 10.3791/50969.
- 19 **Astudillo L**, Bernad S, Derrien V, Sebban P, Miksovska J*. (2013) "Reduction of the internal disulfide bond between Cys 38 and 83 switches the ligand migration pathway in cytoglobin" J. Inorg. Biochem. 129:23-9.
- 20 Adjaye-Mensah, E.; **Gonzalez, W.G.**; Miksovska, J., Wilson, J.* (2012) "Photophysical Characterization of a Benzo-Fused Analogue of Brooker's Merocyanine: Solvent Polarity and pH Effects" J Phys Chem A, 116(51) : 12470-12475.
- 21 Astudillo L, Bernad S, Derrien V, Sebban P, Miksovska J. (2012) "Conformational dynamics in human neuroglobin: the effect of His 64, Val 68 and Cys 120 on ligand migration." Biochemistry 51(50): 9984-9994.
- 22 Li S, Aphale A, Macwan I, Patra PK, **Gonzalez WG**, Miksovska J, Leblanc RM.* (2012) "Graphene Oxide as a Quencher for Fluorescent Assay of Amino Acids, Peptides and Proteins." ACS Appl Mater Interfaces. 116(34): 8671-8677.
- 23 Adjaye-Mensah E, Gonzalez WG, Bussé DR, Captain B, Miksovska J, Wilson JN*. (2012) Emission switching of 4,6-diphenylpyrimidones:solvent and solid state effects. J. Phys. Chem. A 116: 1-7.
- 24 Gantar M*, Simović D, Djilas S, **Gonzalez W. G.**, Miksovska J. (2012) "Isolation, characterization and antioxidative activity of C-phycoyanin from Limnothrix sp. strain 37-2-1." J Biotechnol. 159 (1-2): 21-26.
- 25 Larsen RW*, Miksovska J, Musselman RL, Wojtas L. (2011) "Ground- and excited-state properties of Zn(II) tetrakis(4-tetramethylpyridyl) porphyrin specifically encapsulated within a Zn(II) HKUST metal-organic framework." J Phys Chem A. 115(42):11519-24.
- 26 **Horsa, S., Perez K.**, and Miksovska, J*. (2011) "Functionalization of *rho*-ZMOF with Photosensitizers for Singlet Oxygen Generation." J. Photochem. A. Photobiol. A: Chemistry 221:84–89.

- 27 Vetromile, C. M., J. Miksovská, and Larsen, R.W*. "Time resolved thermodynamics associated with ligand photorelease in heme peroxidases and globins: Open access channels versus gated ligand release. (2011) *Biochimica et Biophysica Acta (BBA) - Proteins & Proteomics* 1814 (8):1065-76
- 28 Astudillo, J., Bernad, S., Derrien, V., Sebban, P., and Miksovská, J.* (2010). "Probing the role of the internal disulfide bond in regulating conformational dynamics in neuroglobin." *Biophys J* 99(2): L16-18.
- 29 Dhulipala, G., M. Rubio, Michael, K. and Miksovská, J.* (2009). "Thermodynamic profile for urea photo-release from a N-(2-nitrobenzyl) caged urea compound." *Photochem Photobiol Sci* 8(8): 1157-1163.
- 30 Jasuja R.* , Ulloor J, Yengo C.M., Choong K., Istomin A.Y., Livesay D.R., Jacobs, D.J., Swerdloff, R., Miksovská, J., Larsen, R.W., and Bhasin, S., (2009). "Kinetic and thermodynamic characterization of dihydrotestosterone-induced conformational perturbations in androgen receptor ligand-binding domain." *Mol Endocrinol* 23(8): 1231-1241
- 31 Miksovská, J.* , Horsa S., Davis M.D. and Franzen, S. (2008) "Conformational dynamics associated with photodissociation of CO from dehaloperoxidase studied using photoacoustic calorimetry." *Biochemistry* 47(44): 11510-11517.
- 32 Belogortseva, N., M. Rubio M., Terrel, W. and Miksovská, J*. (2007). "The contribution of heme propionate groups to the conformational dynamics associated with CO photodissociation from horse heart myoglobin." *J Inorg Biochem* 101(7): 977-986.
- 33 Larsen, R.W* and Miksovská, J. (2007) "Time Resolved Thermodynamics of Ligand Binding to Heme Proteins" *Coordination Chemistry Review* 251 () 1045-1310.
- 34 Lockney, D. and J. Miksovská* (2006). "Characterization of carbon monoxide photodissociation from Fe(II)LPO with photoacoustic calorimetry." *J Phys Chem B* 110(47): 24165-24170.
- 35 Miksovská, J.* Yom, J., Dimond, B., and Larsen, R.W. (2006). "Spectroscopic and photothermal study of myoglobin conformational changes in the presence of sodium dodecyl sulfate." *Biomacromolecules* 7(2): 476-482.
- 36 Miksovská, J., Gennis, R.B., and Larsen, R.W.* (2006). "Thermodynamics of carbon monoxide photodissociation from the fully reduced cytochrome aa3 oxidase from *Rb. sphaeroides*." *Biochim Biophys Acta* 1757(3): 182-188.
- 37 C, Stern AC, Green T., DeVane R., Brian Space B., Miksovská J. and. Larsen R.W*. (2006). "A combined photothermal and molecular dynamics method for determining molecular volume changes." *Chemical Physics Letters* 418(1-3): 137-141
- 38 Kuo, N. N.-W., Huang J. J.-T., Miksovská, J., Chen, R. P.-Y., Larsen R.W., Chan S.I.* (2005). "Effects of turn stability on the kinetics of refolding of a hairpin in a beta-sheet." *J Am Chem Soc* 127(48): 16945-16954.
- 39 Miksovská, J., Suquet C, Satterlee, J. D., and Larsen, R.W*. (2005). "Characterization of conformational changes coupled to ligand photodissociation from the heme binding domain of FixL." *Biochemistry* 44(30): 10028-10036.
- 40 Miksovská, J., Gennis, R.B., and Larsen, R.W*. (2005). "Photothermal studies of CO photodissociation from mixed valence *Escherichia coli* cytochrome bo3." *FEBS Lett* 579(14): 3014-3018.
- 41 Miksovská, J., J. Norstrom, Larsen, R.W*. (2005). "Thermodynamic profiles for CO photodissociation from heme model compounds: effect of proximal ligands." *Inorg Chem* 44(4): 1006-1014
- 42 Miksovská, J. and R. W. Larsen* (2004). "Time-resolved photoacoustics study of the ruthenium(II) bis(2,2'-bipyridine)(4,4'-dicarboxy-2,2'-bipyridine) complex." *Inorg Chem* 43(13): 4051-4055.
- 43 Miksovská J and Larsen RW* (2004) "Ligand binding subsequent to NO photolysis of partially unfolded cytochrome *c*." *Journal of the Chinese Chemical Society* 51:1127-1132. (

- 44 Miksovská, J. and R. W. Larsen* (2003). "Photothermal studies of pH induced unfolding of apomyoglobin." *J Protein Chem* 22(4): 387-394.
- 45 Mikšovská, J. and R. W. Larsen* (2003). "Photothermal studies of the photodegradation of (μ -peroxo)(μ -hydroxo)bis[bis(bipyridyl)Co(III)] and (μ -peroxo)(μ -hydroxo) bis[bis(phenanthroline)Co(III)] complexes in water." *Inorganica Chimica Acta* 355: 116-120.
- 46 Miksovská J, Day JH, and Larsen RW*. (2003). "Volume and enthalpy profiles of CO rebinding to horse heart myoglobin." *J Biol Inorg Chem* 8(6): 621-625.
- 47 Tandori J, Miksovská J, Valerio-Lepiniec M, Schiffer M, Maroti P, Hanson DK, Sebban P*. (2002). "Proton uptake of rhodobacter capsulatus reaction center mutants modified in the primary quinone environment." *Photochem Photobiol* 75(2): 126-133.
- 48 Alexov E, Miksovská J, Baciou L, Schiffer M, Hanson DK, Sebban P, Gunner MR*. (2000). "Modeling the effects of mutations on the free energy of the first electron transfer from QA- to QB in photosynthetic reaction centers." *Biochemistry* 39(20): 5940-5952.
- 49 Kuglstatter A, Miksovská J, Sebban P, Fritzsche G*. (2000). "Structure of the photosynthetic reaction centre from *Rhodobacter sphaeroides* reconstituted with anthraquinone as primary quinone Q(A)." *FEBS Lett* 472(1): 114-116.
- 50 Miksovská J, Schiffer M, Hanson DK, Sebban P*. (1999). "Proton uptake by bacterial reaction centers: the protein complex responds in a similar manner to the reduction of either quinone acceptor." *Proc Natl Acad Sci U S A* 96(25): 14348-14353.
- 51 Valerio-Lepiniec M, Miksovská J, Schiffer M, Hanson DK, Sebban P*. (1999). "Mutations in the environment of the primary quinone facilitate proton delivery to the secondary quinone in bacterial photosynthetic reaction centers." *Biochemistry* 38(1): 390-398.
- 52 Miksovská J, Valerio-Lepiniec M, Schiffer M, Hanson DK, Sebban P*. (1998). "In bacterial reaction centers, a key residue suppresses mutational blockage of two different proton transfer steps." *Biochemistry* 37(8): 2077-2083.
- 53 Miksovská J, Kalman L, Schiffer M, Maroti P, Sebban P*, Hanson DK. (1997). "In bacterial reaction centers rapid delivery of the second proton to QB can be achieved in the absence of L212Glu." *Biochemistry* 36(40): 12216-12226.
- 54 Miksovská J, Maroti P, Tandori J, Schiffer M, Hanson DK, Sebban P. (1996). "Distant electrostatic interactions modulate the free energy level of QA- in the photosynthetic reaction center." *Biochemistry* 35(48): 15411-15417.

Proceedings

1. Miksovská, J., Sopko, B., Sofrova D. Cyanobacterial photosystem II stability. Effect of N-trimethylglycin. in *Photosynthesis: From light to biosphere, Proceedings of the International Photosynthesis Congress, 10th, Montpellier, France 1995*, (1995) 3, 389-392, Mathis P. Ed., Kluwer, Dordrecht.
2. Miksovská, J., Maroti, P., Schiffer, M., Hanson, D.K., and Sebban P. Electrostatic Interaction between L212Glu and QA- in bacterial reaction centers in *Photosynthesis: From light to biosphere, Proceedings of the International Photosynthesis Congress, 10th, Montpellier, France 1995*, (1995) 1, 467-470, Mathis P. Ed., Kluwer, Dordrecht.

Chapters in Books

1. Miksovská J, Larsen RW. Structure-Function Relationships in Metalloproteins, in *Methods in Enzymology: Biophotonics*, Marriott, G. and Parker, I., Ed. 2003, 360, part A, 302-329.
2. J. Miksovská and R.W. Larsen "Photothermal Studies of pH Induced Unfolding of Proteins". in *Protein Structures: Methods in Protein Structure and Stability Analysis*, V.N. Uversky and E.A.

Primakov, Eds., Nova Science Publishers, 2007, 159-187.

3. Miksovská J., and **Astudillo, L.** (2011) "Time resolved thermodynamics associated with diatomic ligand dissociation from globins" *Thermodynamics / Book 1*", Juan Carlos Moreno Ed. Invited contribution ISBN 978-953-307-563-1;

4. Larsen RW, Vetromille CM, Maza WA, **Pham K**, and Miksovská. J (2013) "Exploring biomolecular thermodynamics in aqueous and nonaqueous environments using time resolved photothermal methods. In *Proteins in solutions and interfaces: Methods and applications in biotechnology and material sciences*. Ed: J.M. Ruso and A. Pineiro. John Wiley and Sons., Inc.

PRESENTED PAPERS AND LECTURES

Miksovská J., Schiffer M., Hanson D.K., and Sebban P. In bacterial reaction centers from *Rb. capsulatus* a rapid delivery of the second proton to QB can be achieved in the absence of Glu L212, Gordon Research Conference, Ventura, CA 1997

Miksovská J. and Larsen R.W. Characterization of conformational changes of N to I transition in apomyoglobin, Forty sixth annual meeting of the Biophysical society, San Francisco, CA, February 2002

Miksovská J. and Larsen R.W. Time resolved photoacoustic study of ruthenium(II)bis(2,2'-bipyridyl)(4,4'-dicarboxy -2,2'-bipyridine) complex, , American Chemical Society National Meeting, Orlando, FL, April 2002.

Miksovská J., Croney J. C., Jameson D. M., and Larsen R.W. Mapping of cytochrome c protein folding, 5th International Weber Symposium on Innovative Fluorescence Methodologies in Biochemistry and Medicine, Kauai, Hawaii, June 2002

Miksovská J. and Larsen R.W. Photothermal Studies of the Photodegradation of μ -Peroxo (μ -Hydroxo) bis[bis(bipyridyl) Co(III)] and (μ -Peroxo)(μ -Hydroxo) bis[bis(phenanthroline) Co(III)] Complexes in Water, 47th annual meeting of the Biophysical Society, San Antonio, TX, March 2003.

Miksovská J., Sateerrlee J., and Larsen R.W. Mechanism of CO dissociation from FixL and EcDos proteins, J. Miksovská and R.W. Larsen, 47th annual meeting of the Biophysical Society, San Antonio, TX, March 2003.

Miksovská J., Croney J. C., Jameson D. M., and Larsen R.W. Mapping of cytochrome c protein folding, *Methods and Applications of Fluorescence: Spectroscopy, Imaging and Probes*, 8th international meeting, Prague, Czech Republic, August 2003

Mikšovská J., Satterlee D.J., and Larsen R.W. Characterization of ligand rebinding to heme domains of FixL and Ec Dos proteins, 48th annual meeting of the Biophysical society, Baltimore, MD, February 2004.

Miksovská J, R.B. Gennis, R.W. Larsen, Conformational Changes Coupled to CO photo-dissociation from Fully Reduced Cytochrome aa₃ oxidase from *Rb. sphaeroides* FAME 2004, Orlando, FL, May 2004.

Miksovskaja J., Gennis, R.B., Larsen, R.W. Conformational Changes Coupled to CO Photodissociation from Fully Reduced Cytochrome aa₃ Oxidase from *Rb. sphaeroides*. Eighteenth Symposium of the Protein Society, San Diego, California, August 2004

Brian D., and Miksovskaja, J. Conformational Changes Coupled to Oxygen Photodissociation from Myoglobin: Photoacoustic Study. The 56th Southeastern Regional Meeting of the American Chemical Society, Research Triangle Park, NC, October 2004

Terrell, W. and Miksovskaja, J. Photoacoustic study of carbon monoxide dissociation from myoglobin reconstituted with nonnative heme. 49th Annual Meeting of Biophysical Society, Long Beach, California, 2005.

Miksovskaja, J., Yom, J., Dimond, B., and Larsen, R.W. Spectroscopic and Photothermal Study of Myoglobin Conformational Changes in the Presence of Sodium Dodecyl Sulfate, 19th Symposium of the Protein Society, Boston, MA, July 30-August 3, 2005

Miksovskaja, J., Yom, J., Dimond, B., and Larsen, R.W. Spectroscopic and Photothermal Study of Myoglobin Conformational Changes in the Presence of Sodium Dodecyl Sulfate, 230th ACS National Meeting, in Washington, DC, Aug 28-Sept 1, 2005

Lockney, D. and Miksovskaja, J. Kinetic and Thermodynamic Study of CO-binding to Lactoperoxidase Using Photoacoustic Calorimetry and Transient Absorption. 230th ACS National Meeting, in Washington, DC, Aug 28-Sept 1, 2005

Larsen, R.W., Miksovskaja, J., Suquet C, Satterlee, J. D., "Biophysical Studies of Bacterial Oxygen Sensors" Pacifichem 2005, Honolulu, HI, Dec. 15-20, 2005

Jaroslava Miksovskaja, Kristen Grinstead, Michael McCumbers "Monitoring of proton release in the water pool of aqueous reverse micelles using fluorescence and photoacoustic calorimetry" 50th Annual Meeting of Biophysical Society, Salt Lake City, Utah, Feb. 2006.

Jaroslava Miksovskaja, Kristen Grinstead, and Michael McCumbers "Monitoring of proton release in the water pool of aqueous reverse micelles using fluorescence and photoacoustic calorimetry" 231th ACS National Meeting, in Atlanta, GA, March, 2006

Lockney D. and Miksovskaja J. "Characterization of Carbon Monoxide Photodissociation from FeILPO Using Photoacoustic Calorimetry" 232th ACS National Meeting in San Francisco, CA, September 2006.

Rubio, M. and Miksovskaja, J., "Photodissociation of caged urea studied by photothermal beam deflection, 51th Annual Meeting of Biophysical Society, Baltimore, Maryland, Feb. 2007

Danielle Clarck, Natalia Belogortseva, Menashi Cohenford, Jaroslava Miksovskaja, Spectroscopic characterization of nonezymatically glucated hemoglobin", 51th Annual Meeting of Biophysical Society, Baltimore, Maryland, Feb. 2007

Miksovskaja J., Belegortseva N. and Dragnea V. "Photoacoustic study of the photoactivation of the BLUF domain of AppA protein from *Rb. sphaeroides*" 52nd Annual Meeting of Biophysical Society, Long

Beach, CA, February 2008.

Lockney, D; and Miksovskaja, J. "Photophysical properties of acridine 9-carboxylic acid in aqueous solutions studied by photoacoustic calorimetry and photothermal beam deflection. 235th ACS National Meeting, New Orleans, LA, April 2008.

Miksovskaja, J. "Unraveling Structural Dynamics in Heme Proteins". 238th ACS National Meeting, Washington, DC, August, 2009.

Astudillo, L. and Miksovskaja, J. Study of photophysical properties of [Ru(bpy)₃]²⁺ and free base porphyrin encapsulated within amino acid based hydrogel. 238th ACS National Meeting, Washington, DC, United States, August 2009.

Kathryn, P. and Miksovskaja, J. "Evaluation of photophysical properties of methylene blue incorporated within ZMOF framework." 238th ACS National Meeting, Washington, DC, August 2009.

Horsa, S., Miksovskaja, J. and Wang. X. "Dynamics and energetic associated with ligand photodissociation from CO bound chloroperoxidase". 85th Annual FAME Meeting, May 2009, Kissimmee, FL.

Astudillo, L. and Miksovskaja, J. "Study of photophysical properties of [Ru(bpy)₃]²⁺ and free base porphyrin encapsulated within amino acid based hydrogels. 85th Annual FAME Meeting, May 2009, Kissimmee, FL.

Calix, M., Horsa S., and Miksovskaja, J. "Characterization of AOT induced unfolding intermediates in myoglobin and cytochrome c" 85th Annual FAME Meeting, May 2009, Kissimmee, FL

"Photoinduced electron transfer in porphyrin oligopeptides self-assembled complexes. Mimy Young and Jaroslava Miksovskaja 85th Annual FAME Meeting, May 2009, Kissimmee, FL

Miksovskaja, J. and Perez, K. "Evaluation of Photophysical Properties of Methylene Blue Incorporated within ZMOF Framework", 54th Annual Meeting of Biophysical Society, February 2010, CA

Horsa, S. Wang, S. and Miksovskaja J. "Structural Dynamics in Chloroperoxidase: A Photoacoustic Study", 54th Annual Meeting of Biophysical Society, February 2010, CA

Astudillo L. Sebban P. and Miksovskaja J. Role of the Internal Disulfide Bond in the Conformational Dynamics of Neuroglobin", 54th Annual Meeting of Biophysical Society, February 2010, San Francisco CA

Dhulipala, G. and Miksovskaja, J. "Characterization of Conformational Transitions in Dream Protein using Fluorescence Spectroscopy" 54th Annual Meeting of Biophysical Society, February 2010, San Francisco CA

Miksovskaja, J. "Conformational Dynamics in calcium binding proteins": Photothermal Study. FAME,

Innsbruck, FL May 2010.

Miksovská J. "Conformational Dynamics in DREAM Protein". Joint 66th Southwest and 62nd Southeast Regional Meeting of the American Chemical Society, New Orleans, LA, United States, December 2010

Astudillo, L., Bernad, S., Derrien, V., Sebban, P. and Miksovská, J. "The role of the internal disulfide bond in the conformational dynamics of neuroglobin" FAME, Innsbruck, FL May 2010.

Astudillo, Luisana; Conformational Dynamics in Neuroglobin. Joint 66th Southwest and 62nd Southeast Regional Meeting of the American Chemical Society, New Orleans, LA, December 2010

Dorschner, P.; Miksovská, J. Mechanism of AOT interaction with horse heart myoglobin. Joint 66th Southwest and 62nd Southeast Regional Meeting of the American Chemical Society, New Orleans, LA, December 2010.

Miksovská, J. and Dhulipala, G. Conformational Dynamics in DREAM Protein. Biophysical Society 55th Annual Meeting, Baltimore, MD, February 2011.

Luisana Astudillo, Sophie Bernard, Valerie Derrien, Pierre Sebban, Jaroslava Miksovská. Conformational Dynamics in Neuroglobin. Biophysical Society 55th Annual Meeting, Baltimore, MD, February 2011.

Luisana Astudillo, Sophie Bernard, Valerie Derrien, Pierre Sebban, and Jaroslava Miksovská; Time-resolved Thermodynamics of CO Binding to Neuroglobin; FAME Tarpon Spring, May 2011

Walter Gonzalez and Jaroslava Miksovská; Binding study of extrinsic hydrophobic probes to DREAM in the presence of Mg^{2+} and Ca^{2+} , FAME Tarpon Spring, May 2011.

Khoa Pham and Jaroslava Miksovská; Conformational Changes Associated with Ca^{2+}/Mg^{2+} Binding to EF-Hands of DREAM Protein, FAME, Tarpon Spring, May 2011

Walter Gonzalez, and Jaroslava Miksovská; Ca^{2+} and Mg^{2+} induced conformational changes on DREAM (Downstream Regulatory Antagonist Modulator) measured by extrinsic hydrophobic probes. SERMAC, Richmond, Virginia, October 2011

Khoa Pham and Jaroslava Miksovská; Ca^{2+} induced changes in the structure, dynamics and stability of DREAM protein, SERMAC, Richmond, Virginia, October 2011.

Walter Gonzalez and Jaroslava Miksovská; Ca^{2+} and Mg^{2+} Induced Conformational Changes in Downstream Regulatory Antagonist Modulator (DREAM) Measured by Extrinsic Hydrophobic Probes; Biophysical Society 57th Annual Meeting, February 2012, San Diego, CA

Khoa Pham and Jaroslava Miksovská; Mg^{2+}/Ca^{2+} Induced Changes in Structure, Dynamics and Stability of Dream Protein; Biophysical Society 57th Annual Meeting, February 2012, San Diego, CA

Luisana Astudillo and Jaroslava Miksovska; Impact of the Internal Disulfide Bond on Structural Dynamics in Vertebrates Hexacoordinate Hemeoglobins; Biophysical Society 57th Annual Meeting, February 2012, San Diego, CA

David Butcher, Luisana Astudillo, Takahashi Yonetani, and Jaroslava Miksovska; Timer resolved thermodynamics for diatomic ligand interactions with hemoglobin-effector complexes. Biophysical Society 57th Annual Meeting, February 2012, San Diego, CA

J. Miksovska : “Role of Tyr 44 in transmitting structural information between the CD-loop and heme binding site in neuroglobin” 245th ACS National Meeting & Exposition, New Orleans, LA, United States, April 7-11, 2013 (2013)

J. Miksovska “Role of Tyr 44 in transmitting structural information between the CD-loop and heme binding site in neuroglobin” 64th Southeast Regional Meeting of the American Chemical Society, Raleigh, NC, United States, November 14-17 (2012), SERM-241.

Luisana Astudillo, Khoa Pham, Sophie Bernad, Valerie Derrien, Pierre Sebban and Jaroslava Miksovska. Cytoglobin interactions with hydrophobic probe 1,8-ANS and lipids. 245th ACS National Meeting. April 9, 2013. New Orleans, LA.

Luisana Astudillo, Khoa Pham, Sophie Bernad, Valerie Derrien, Pierre Sebban and Jaroslava Miksovska. “Cytoglobin interactions with hydrophobic probe 1,8-ANS”. Biophysical Meeting. Feb 6, 2013. Philadelphia, PA.

Luisana Astudillo and Jaroslava Miksovska. “Impact of the disulfide bond on conformational dynamics in cytoglobin”. March 7, 2013. Annual Florida International University Biomedical and Comparative Immunology Symposium. Miami, FL.

Luisana Astudillo, Sophie Bernad, Valerie Derrien, Pierre Sebban and Jaroslava Miksovska. Impact of the internal disulfide bond on structural dynamics in vertebrate hexa-coordinate hemoglobins. FAME 2012. May 17th, 2012. Innisbrook, FL.

Walter Gonzalez, Jaroslava Miksovska. Modulation of the Kv4.3-KChIP3 interactions by Ca²⁺ and NS5806. SERMACS 2012 North Carolina.

Walter Gonzalez, Khoa Pham, Jaroslava Miksovska. Modulation of the Kv4.3-KChIP3 interactions by Ca²⁺ and NS5806. Biophysical Meeting 2013 Pennsylvania

Gonzalez, Walter G.; Miksovska, Jaroslava “Study of the dynamic and thermodynamic calcium induced transition in the downstream regulatory element antagonist modulator (DREAM) using photothermal beam deflection (PBD)”
245th ACS National Meeting & Exposition, New Orleans, LA, United States, April 7-11, 2013

Khoa Pham and Jaroslava Miksovska, Spectroscopic study Ca²⁺ induced changes in the structure, dynamics, and stability of DREAM Protein, SERMACS, 11/14/2013 Raleigh, NC

Khoa Pham and Jaroslava Miksovska, Spectroscopic study of Ca²⁺ induced changes in the structure, dynamics, and stability of DREAM protein and its mechanism of DNA Interaction, Biophysical Meeting, 02/01/2013, Philadelphia, PA

Khoa Pham and Jaroslava Miksovska, Spectroscopic study of Ca²⁺ induced changes in the structure, dynamics, and stability of DREAM protein and its mechanism of DNA Interaction, ACS Meeting, 04/07/2013, New Orleans, LA

David Butcher, Luisana Astudillo, Takashi Yonetani, Jaroslava Miksovska. Time-resolved thermodynamics and transient kinetics for oxygen photorelease from hemoglobin:effector complexes. Southeastern Regional Meeting of the ACS. November 14 - 17, 2012. Raleigh, NC

David Butcher, Luisana Astudillo, Takashi Yonetani, Jaroslava Miksovska. Time-resolved thermodynamics and transient kinetics for oxygen photorelease from hemoglobin:effector complexes. Biophysical Society 57th Annual Meeting. February 2 - 6, 2013. Philadelphia, PA

David Butcher, Luisana Astudillo, Takashi Yonetani, Jaroslava Miksovska. Time-resolved thermodynamics and transient kinetics for oxygen photorelease from hemoglobin:effector complexes. 245th ACS National Meeting. April 7 - 11, 2013. New Orleans, LA

Miksovska, J; Astudillo, L; Bernad, S ; Derrien, V; Sebban, Conformational dynamics associated with the ligand migration in hexa-coordinate globins. July 13-17, 2013, Lisbon, Portugal, 9th European Biophysics Congress.

David Butcher, Jaroslava Miksovska
DNA i-MOTIF Probed by Photoacoustic Calorimetry
58th Biophysical Society Annual Meeting, February 2014 , San Francisco, California

Molecular Mechanism of Dream -Presenilin-1 Interactions
58th Biophysical Society Annual Meeting, February 2014 , San Francisco, California
Khoa Pham, Jaroslava Miksovska

Study of the Dynamic and Thermodynamic Calcium Induced Transition in the Downstream Regulatory Element Antagonist Modulator (DREAM) using Photothermal Beam Deflection (PBD)
Walter Gonzalez and Jaroslava Miksovska
58th Biophysical Society Annual Meeting, February 2014 , San Francisco, California

DNA i-MOTIF Probed by Photoacoustic Calorimetry
David Butcher, Jaroslava Miksovska
12th Annual Raymond N. Castle Student Research Conference at USF

Molecular Mechanism of Dream -Presenilin-1 Interactions
Khoa Pham and Jaroslava Miksovska
12th Annual Raymond N. Castle Student Research Conference at USF, 2014

Study of the Dynamic and Thermodynamic Calcium Induced Transition in the Downstream Regulatory Element Antagonist Modulator (DREAM) using Photothermal Beam Deflection (PBD)
Walter Gonzalez and Jaroslava Miksovska

12th Annual Raymond N. Castle Student Research Conference at USF, 2014

Reduction of the internal disulfide bond between Cys 38 and 83 switches the ligand migration pathway in cytoglobin

Astudillo L, Bernad S, Derrien V, Sebban P, Miksovska J.

12th Annual Raymond N. Castle Student Research Conference at USF, 2014

Modulation of Kv4.3-KChIP3 interactions by Ca^{2+} and NS5806.

Walter Gonzalez and Jaroslava Miksovska

16th Annual Biomedical and Comprehensive Immunology Symposium, Florida International University, 2014

Role of ionic strength and the Bohr effect in modulating thermodynamic profiles associated with CO escape in rice non-symbiotic hemoglobin 1

David Butcher and Jaroslava Miksovska

66th Southeastern Regional Meeting of the American Chemical Society, October 16th - 19th, 2014

Interaction-based analysis of the DREAM-Calmodulin complex

Walter G. Gonzalez, Andres S. Arango, and Jaroslava Miksovska

66th Southeastern Regional Meeting of the American Chemical Society, October 2014

Role of Ionic Strength and the Bohr Effect in Modulating Thermodynamic Profiles Associated with Co Escape in Rice Non-Symbiotic Hemoglobin 1

David Butcher, Jaroslava Miksovska

59th Biophysical Society Annual Meeting, February 2015, Baltimore MA

Characterization of the Photophysical, Thermodynamic and Structural Properties of the Terbium(III)-KChIP3 Complex

Walter Gonzalez, Jaroslava Miksovska

59th Biophysical Society Annual Meeting, February 2015, Baltimore MA

Identification of the Binding Interface between Calsenilin and Presenilin 1 C-Terminal Fragment

Khoa N. Pham, Jaroslava Miksovska

59th Biophysical Society Annual Meeting February 2015 Baltimore, MA

Conformational dynamic coupled to signal transduction in Downstream Regulatory Element Antagonist Modulator

Jaroslava Miksovska

The International Chemical Congress of Pacific Basin Societies 2015, Honolulu, HI

Dynamic Network Analysis of Dream Protein Dimer Interface

Maurizio A. Diaz, Walter G. Gonzalez, Joseph Hernandez, Jaroslava Miksovska

60th Biophysical Society Annual Meeting February-March 2016, Los Angeles, CA

Role of Aromatic Residues in Dynamic Networks in DREAM/KChIP3

Walter G. Gonzalez, Maurizio Diaz, David H. Perez, Jaroslava Miksovska

60th Biophysical Society Annual Meeting February-March 2016, Los Angeles, CA

David Butcher, Myriam Moussaoui, Laura Baciou, Jaroslava Miksovska

Determination of Thermodynamic and Kinetic Parameters for Co Migration within Bacterial Flavohemoglobins of *Ralstonia Eutropha* and *Staphylococcus Aureus*
60th Biophysical Society Annual Meeting February-March 2016 , Los Angeles, CA

By collaborators:

Noguera, Martin S.; Llodra, Anthony; Lichter, Joseph; Mikšovska, Jaroslava, “Being the catalyst for inspiring South Florida youth to engage in chemistry” 245th ACS National Meeting & Exposition, New Orleans, LA, United States, April 7-11, 2013 (2013)

Maza, William A.; Mikšovska, Jaroslava; Larsen, Randy W. “Ionic strength effect on the reaction enthalpy changes for electron transfer between free-base uroporphyrin and bovine cytochrome C probed by time-resolved photoacoustic calorimetry”.

Quirke, Jonathan C.; Mikšovska, Jaroslava; Quirke, J. Martin E. “ Aesthetically appealing benzyne trapping reaction via mixed aldol and Diels-Alder reactions” 244th ACS National Meeting & Exposition, Philadelphia, PA, United States, August 19-23, 2012

William A. Maza, Khoa Pham, Jaroslava Mikšovská, and Randy W. Larsen “A non-radiative method for measuring energy transfer efficiencies using photoacoustic calorimetry: PAC-FRET” Biophysical Society 57th Annual Meeting. February 2 - 6, 2013. Philadelphia, PA

Lectures:

Mikšovska, J. Role of GluL212 in the proton transfer in the bacterial reaction center. Department of Biophysics, JATE University in Szeged, Hungary, December 1997

Mikšovska, J. Characterization of the reaction centers of *Rb. capsulatus*. Proton transfer coupled to the reduction of the quinone complex. Institut de Biologie Physico-Chimique, Centre National de la Recherche Scientifique, Paris, France, June 1998

Mikšovska, J. Mutations in the QA binding site facilitate proton delivery to the secondary quinone in bacterial photosynthetic reaction centers, Department of Biological Science, University of South Bohemia, Ceske Budejovice, Czech Republic, December 1998.

Mikšovska, J. What does photothermal methods tell us about reactions in biological systems? Department of Chemistry, University of Illinois at Urbana-Champaign, Urbana, IL, April 2003.

Mikšovska, J. Application of photothermal methods to study biological reactions. Department of Chemistry, Jackson State University, Jackson, Mississippi, September 2003.

Mikšovska, J. Volume and enthalpy changes coupled to ligand photodissociation in heme proteins. Department of Chemistry, Marshall University, Huntington, West Virginia, October 2003.

Mikšovska, J. Nanosecond to millisecond calorimetry of biological molecules using photothermal methods. Department of Chemistry, Clarkson University, Potsdam, New York, December 2006

Mikšovska, J. Nanosecond to mili-second calorimetry of biological molecules using photothermal methods Department of Chemistry, University of Central Florida, Orlando, Florida, February 2007.

Miksovskaja, J. Structure Dynamics Function Relationship of Globin Family Proteins” Department of Chemistry, Ave Maria University, Florida, September 2009

Miksovskaja, J. Unraveling Structural Changes in Proteins Using Photothermal Methods, Department of Chemistry, University of Texas El Paso, Texas, April 2009.

Miksovskaja, J. Conformational Dynamics in Calcium Binding Proteins” Department of Chemistry, USF, Florida, April 2010.

Miksovskaja, J. Time resolved conformational dynamics in calcium sensors. Florida Memorial University, March 2011

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FUNDED RESEARCH

J. Miksovskaja, Conformational Dynamics in Hexa-coordinated Hemoglobins Florida Department of Healthy, James & Esther King Foundation, New Investigator Research Grant. 07/2010 – 07/2013, \$ 387,063.

J. Miksovskaja, Conformational Dynamics Associated with Ca²⁺ binding to DREAM Protein. National Science Foundation, MCB, 07/2010 – 07/2014 \$523,223.

J. Miksovskaja, Nanosized zeolite-like-metal organic framework: use as a photochemical host; Competitive Summer Faculty Development Awards, FIU, Summer 2009, \$8,149

Miksovskaja, J., Thermodynamic Profiles for Calmodulin Signaling, American Heart Association, Beginning Grant-in-Aid, 07/2006 – 06/2008, \$ 121,000.

Miksovskaja J. WVEPSCOR Research Proposal Preparation Mini-grant Program, \$ 4,500, summer 2006.

Harrison, M. (PI) and Miksovskaja, J. (Co-PI), “Kinetic Analysis of Plant Ethylene Production Using Photoacoustic Spectroscopy” United State Department of Agriculture, \$70,000 (instrumentation grant) 09/2005-08/2006.

PROFESSIONAL HONORS, PRIZES, FELLOWSHIPS, AWARDS

Graduate Fellowship from French Government (2004-2008)

2012 FIU Top Scholar

Visiting Professor, University of Paris Orsay June/July 2015

OFFICES HELD IN PROFESSIONAL SOCIETIES

Member of American Chemical Society

Member of Biophysical Society

OTHER PROFESSIONAL ACTIVITIES AND PUBLIC SERVICE

NIH MSFB study section, ad-hoc member on review panel, October 2007
American Heart Association, Basic Cell Peer Review Committee member, April 2008
American Heart Association, Basic Cell Peer Review, Committee member, October 2011
American Heart Association, Basic Cell Peer Review, Committee member, April 2012
American Heart Association, Basic Cell Peer Review, Committee member, October 2012
American Heart Association, Basic Cell Peer Review, Committee member, April 2013
American Heart Association, Basic Cell Peer Review, Committee member, October 2013
American Heart Association, Basic Cell Peer Review, Committee member, April 2014
American Heart Association, Basic Cell Peer Review, Committee member, October 2014
American Heart Association, Basic Cell Peer Review, Committee member, April 2015
American Heart Association, Basic Cell Peer Review, Committee member, October 2015
National Science Foundation, reviewer, 2010, 2011, 2012
Petroleum Research Fund, reviewer, 2004
External reviewer of 2009-2010, 2012-2011 ACS student chapter report
External reviewer for The Netherlands Organization for Scientific Research, September 2016

Reviewer for journals:

Inorganic Chemistry, Journal of Physical Chemistry A., Journal of Physical Chemistry B, Inorganica Chimica Acta, PlosOne, Journal of American Chemical Society, ACS Applied Materials & Interfaces, Photochem Photobiol. Sciences. Sensor and Attenuators, Plus One, Journal of Inorganic Biochemistry.