

NAME Jhenny F. Galan	CONTACT INFORMATION 200 Seawolf Parkway Galveston, TX 77553 MAIN 408B Email: galanj@tamug.edu	
CURRENT TITLE Instructional Assistant Professor of Chemistry Texas A&M University at Galveston		
EDUCATION		
INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
University of the Philippines, Los Banos, Laguna, Philippines	B.Sc.	Chemistry
University of Connecticut, Storrs, CT	Ph.D.	Physical Chemistry

A. RESEARCH INTERESTS

The emphasis of our research is to develop and use computational methods to understand structure-function relationships, conformational and dynamical properties of complex structures and biological macromolecules. Current specific areas of study include:

- (1) *Investigating nitrite reductase (NiR) activities of globins and human-serum albumin using electronic structure methods*
- (2) *Homology modeling and long timescale MD simulations of Jak3 tyrosine kinase*
- (3) *Structure-based design of aromatic foldamers*

B. POSITIONS AND HONORS

Positions and Employment

2016-present	Instructional Assistant Professor of Chemistry, Foundational Sciences, Texas A&M University Galveston Campus, Galveston, TX
January 2012 – 2016	Assistant Professor of Chemistry, Department of Marine Sciences, Texas A&M University Galveston Campus, Galveston, TX
January 2007- December 2011	Postdoctoral Research Associate, West Center for Computational Chemistry and Drug Design, Department of Chemistry and Biochemistry, University of the Sciences, Philadelphia, PA
August 2000- December 2006	Graduate Teaching and Research Assistant, University of Connecticut, Storrs, CT
June 1999-July 2000	Research Assistant, International Rice Research Institute, Philippines
June 1996- June 1999	Chemistry Instructor, University of the Philippines

Honors and Awards

1996	Phi Kappa Phi Honor Society
1996	<i>Magna Cum Laude</i> , University of the Philippines, Los Banos, Laguna, Philippines
2006	Outstanding Teaching Assistant Award for 2005-2006, University of Connecticut
2006	Doctoral Dissertation Fellowship Award, University of Connecticut

C. PUBLICATIONS

Peer-reviewed and Published

Galinato, M. G. I*, Fogle, R. S. III., Stetz, A., Galan, J. F*. Modulating the nitrite reductase activity of globins by varying the heme substituents: Using myoglobin as a model system. *Journal of Inorganic Biochemistry*, 154, 7-20, 2016.

Galan, Jhenny F., Germany, E., Pawlowski, A., Strickland, L., Galinato, M.G. Theoretical and Spectroscopic Analysis of *N,N'*-Diphenylurea and *N,N'*-Dimethyl-*N,N'*-diphenylurea Conformations. *Journal of Physical Chemistry A*, 118, 5304-5315, 2014

Galinato, M.G., Fogle III, R. S. and Galan, Jhenny F. Binding interaction of hypocrellin B to myoglobin: a spectroscopic and computational study. *Spectrochimica Acta A: Molecular and Biomolecular Spectroscopy*, 115, 337-344, 2013

Galan, Jhenny F., Tang, Chi N., Chakrabarty, Shubhasis, Liu, Zhiwei, Moyna, Guillermo, and Pophristic, Vojislava. Conformational Preferences of Furan- and Thiophene-based Arylamides: A Combined Computational and Experimental Study. *Physical Chemistry Chemical Physics*, 15, 11883-11892, 2013

Chen, M. S., Sandberg, D. J., Babu, K. R., Bubis, J., Surya, A., Ramos, L.S., Galan, J.F., Sandberg, M., Birge, R. and Knox, B.E. Conserved residues in the extracellular loops of short-wavelength cone visual pigments, *Biochemistry*, 50(32), 6763-6773, 2011

Galan, Jhenny F., Brown, Jodian, Wildin, Jayme L., Liu, Zhiwei, Liu, Dahui, Moyna, Guillermo, and Pophristic, Vojislava. Intramolecular Hydrogen Bonding in *ortho*-Substituted Arylamide Oligomers: A Computational and Experimental Study of *ortho*-Fluoro and *ortho*-Chloro *N*-methylbenzamides. *Journal of Physical Chemistry B*, 113(38), 12809-12815, 2009.

Galan, Jhenny F., Gao, J. , Pabuwal, V. , Meek, P.J. and Li, Z. Application of Network Theory in Understanding and Predicting Protein Structure and Function. *Current Proteomics*, 5, 181-190, 2008

Amora, Tabitha, Ramos, Lavoisier, Galan, Jhenny F. and Birge, Robert, R. Spectral Tuning of Deep Red Cone Pigments. *Biochemistry*, 47(16), 4614-4620, 2008

Rangarajan, Rekha, Galan, Jhenny F., Whited, Gregg, and Birge, Robert R. The Mechanism of Spectral Tuning of Green-Absorbing Proteorhodopsin, *Biochemistry*, 46 (44), 12679-12686, 2007

Hillebrecht, Jason R., Galan, Jhenny F., Rangarajan, Rekha, Ramos, Lavoisier R., McCleary, Kristina N., Ward, Donald E., Stuart, Jeffrey A. and Birge, Robert R. Structure, Function and Wavelength Selection in Blue-Absorbing Proteorhodopsin, *Biochemistry*, 45 (6),1579-1590, 2006.

Xu, Jing, Ramian, Gerry J., Galan, J.F., Savvidis, Pavlos G., Scopatz, Anthony M., Birge, Robert R., Allen, S James and Plaxco, Kevin W. Terahertz Circular Dichroism Spectroscopy of Biomolecules. *In Proceedings of the International Society of Optical Engineering*, Vol 5268 (Edited by J.O. Jensen and J. M. Theriault), pp.19-26. SPIE, Providence, 2004

Whitmire, S.E., Wolpert, D., Markelz, A.G., Hillebrecht, J.R., Galan, J. and Birge, R. R. Protein Flexibility and Conformational State: A Comparison of Collective Vibrational Modes of Wild-Type and D96N Bacteriorhodopsin. *Biophysical Journal*, Vol 85, 1269-1277, 2003

Xu, Jing , Ramian, Gerry J., Galan, Jhenny F., Savvidis, Pavlos G., Scopatz, Anthony M., Birge, Robert R. , Allen, James S., and Plaxco, Kevin W. Terahertz Circular Dichroism Spectroscopy: A Potential Approach to the *In Situ* Detection of Life's Metabolic and Genetic Machinery. *Astrobiology*, Vol 3, Number 3, 489-504, 2003.

Choi, Gregory, Landin, Judith., Galan, Jhenny F., Birge, Robert R., Albert, Arlene D., and Yeagle, Philip L. Structural Studies of Metarhodopsin II, the Activated Form of the G-protein Coupled Receptor, Rhodopsin. *Biochemistry*, 41 (23), 7318-7324, 2002

Conference Proceedings and Abstracts –not refereed (last 5 years)

Galan, J. F., Galinato, M.I., Friedberg, L. (2016, November). Modulating the nitrite reductase activity of of globins by varying the heme substituents. ACS 72nd Annual Southwest Regional Meeting, Galveston, TX

Albach, J. and J. Galan. (2016, November). Structural insights into the regulation of JAK3 activity: Evidence from molecular modeling of the full human JAK3 protein. ACS 72nd Annual Southwest Regional Meeting, Galveston, TX

Galan, J., Germany, E., Pawlowski, A., & Galinato, M. G. (2014, August). Conformational Propensities And Dynamic Behavior Of Aromatic Oligourea Foldamers. In *Abstracts Of Papers Of The American Chemical Society* (Vol. 248). 1155 16th St, NW, Washington, DC 20036 USA: Amer Chem. Soc.

Pophristic, V., Liu, Z., Abramyan, A., Wujcik, M., Galan, J., Geer, J., & Moyna, G. (2014, March). Arylamide Foldamers: From Force Field Development To Applications. In *Abstracts Of Papers Of The American Chemical Society* (Vol. 247). 1155 16th St, NW, Washington, DC 20036 USA: Amer Chem. Soc.

Pophristic, V., Liu, Z., Geer, J., Galan, J., Abramyan, A., Sproviero, E., & Moyna, G. (2013, April). Combined Computational And Experimental Approach For Structure Prediction Of Foldamers. In *Abstracts Of Papers Of The American Chemical Society* (Vol. 245). 1155 16th St, NW, Washington, DC 20036 USA: Amer Chemical Soc.

E. OTHER RESEARCH-RELATED ACTIVITIES

Invited Lectures and Seminars

Molecular insights into the regulation of nitrite reductase activity of myoglobin. 10/28/2016. Math and Science Seminar (MSS), Texas A&M University Galveston

Structure-based Design of Functional Foldamers. 12/5/2014. Math and Science Seminar (MSS), Texas A&M University Galveston

“Rational design of aromatic oligourea foldamers”, 69th Southwest Regional Meeting of the American Chemical Society, Waco, TX, Nov. 16-19, 2013. SWRM-279 ACS ABSTRACTS

Presentations at Professional Conferences

Modulating the nitrite reductase activity of of globins by varying the heme substituents. Poster Presentation. ACS 72nd Annual Southwest Regional Meeting, Galveston, TX. Nov. 10-13, 2016

Oceans and One Health: A Unique Pre-Health Curriculum Tailored for Student Success. Poster Presentation. NAAHP (National Association of Advisors for the Health Professions) National Meeting. Minneapolis, MN. June 15-19, 2016

Conformational Properties of Aromatic Foldamers: Toward the Rational Design of Functional Structures. Oral Presentation. International Conference for Young Chemists, Penang, Malaysia. August 4-8, 2015.

Conformational Preferences and Dynamics of Aromatic Oligourea Foldamers. Oral Presentation. 248th Fall ACS National Meeting, San Francisco, CA, August 10-14, 2014.

Conformational Preferences of Aromatic Oligourea Foldamers. Poster Presentations. Gordon Research Conference: Computational Aspects -Biomolecular NMR, 6/2/2013-6/7/2013, West Dover, VT

Conformational Preferences of Furan- and Thiophene-based Arylamides: A Combined Computational and Experimental Study, Oral Presentation. Southwestern Theoretical Chemistry Conference, Texas A&M University, College Station, TX, Oct 26-28, 2012.

Intramolecular hydrogen bonding in ortho-substituted arylamide oligomers : A model compound study. Oral presentation at the Fall ACS National Meeting, Washington, D.C., August 16-20, 2009.

Coarse-grain molecular dynamics of proteins: characterization and testing. Oral presentation at the Fall ACS National Meeting, Washington, D.C., August 16-20, 2009.

Coarse-grain molecular dynamics simulation of the bacterial chemotaxis system. Oral presentation at the Fall ACS National Meeting, Philadelphia, PA, August 17-21, 2008.

The Effect of Hydrogen-bonding Strengths of Various Foldamer Building Blocks on the Conformational Distributions of Aromatic Oligomers. Poster Presentation at the Fall ACS National Meeting, Philadelphia, PA, Aug 17-21, 2008.

Effect of Hydrogen-Bonding Strengths in Various Foldamer Building Blocks on the Conformational Distributions of Aromatic Oligomers. Oral presentation at ACS Mid-Atlantic Regional Meeting, Queensborough Community College, Bayside, Queens, NY, May 21, 2008.

Spectral Tuning of Red Cone Pigments. Poster Presentation at The 3rd Annual North Eastern Structure Symposium Macromolecular Assembly, University of Connecticut, Storrs, CT, September, 2006.

Nature of the Low-frequency Modes of Wild-type and D96N Bacteriorhodopsin. Poster Presentation at the 2005 American Conference on Theoretical Chemistry (ACTC), University of California, Los Angeles, California, July, 2005.

Conformational Flexibility of Wild-type and D96N Bacteriorhodopsin. Poster Presentation at the New England Structure Symposium NMR Perspectives on Biological Problems, University of Connecticut, Storrs, CT, October, 2004.

F. SYNERGISTIC ACTIVITIES

Reviewer, *Chirality*, 2015

Reviewer, *Journal of Chemical Information and Modeling*, 2010-2011

Member, Chemistry Search Committee (October 2017-present)

MARS/FSCI Representative, Advising Council, TAMUG (September 2017-present)

Chair, Instructional Assistant Professor for Chemistry Search Committee, MARS, (December 2016-June 2017)

Faculty in-charge, Oceans and One Health (Sept 2016-present)

JAMP Faculty Director at TAMUG (September 2016-present)

Chair, Instructional Professor for Physics Search Committee, MARS, (Sept 2015-May 2016)

Faculty College Representative (TAMUG), Texas A&M AFS Distinguished Achievement Awards Committee, (Dec 2015-March 2016)

Member, TAMUG Academic Appeals Panel, (Fall 2015-present)

Member, MARS Representative, TAMUG Honor Council, (Spring 2016-present)

College Representative (TAMUG), Texas A&M Women's Faculty Network, (October 2012-present)

Member, Instructional Assistant Professor for Chemistry Search Committee, MARS, (April 2013)

Member, Search Committee for Instructional Assistant Professor in Chemistry, MARS (May-July 2014)

MARS Representative, Academic Programs Council TAMUG, (January 2014-present)

Judge (Graduate-level), TAMUG Student Research Symposium, April 2012 and 2015

Thermodynamics Event Coordinator and Judge, Texas Regional Science Olympiad, Feb 23, 2013, Texas A&M University at Galveston

Industry Representative, CCISD (Clear Creek Independent School District) District Wide Career Fair, November 12, 2014, Clear Falls High School, League City, TX

Professional Memberships

2001-present Member, American Chemical Society
2015-2016 Member, *Sigma Delta Epsilon*, Graduate Women in Science

G. COLLABORATORS & OTHER AFFILIATIONS

Collaborators

Dr. M. G. Galinato	School of Science, Pennsylvania State University-Erie, PA
Dr. Z. Liu	Dept of Chemistry and Biochemistry, University of the Science, Philadelphia, PA
Dr. V. Pophristic	Dept of Chemistry and Biochemistry, University of the Science, Philadelphia, PA