

JUDITH HELENA PRIETO

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CURRENT POSITION

Aug 2022-present Professor, Chemistry Department, Western Connecticut State University
Aug 2017 Associate Professor, Chemistry Department, Western Connecticut State university
Aug 2012 Assistant Professor, Chemistry Department, Western Connecticut State University

PREVIOUS POSITIONS

Jan 2011-Aug 2012 Alexander von Humboldt fellow at Giessen University, 35392, Giessen, Germany
Sept 2009-Dec 2010 Scientist. Alexion Pharmaceuticals Inc. 352 Knotter Dr, Cheshire, CT 06518, USA
May 2005- Sept 2009 Postdoctoral Associate, Yates Laboratory, The Scripps Research Institute, La Jolla, CA, USA

EDUCATION

2005 PhD., Chemistry
Department of Chemistry and Biochemistry, University of California, San Diego
Advisor: Dr. Elizabeth A. Komives
Project: Correlations Between Dynamic Motions and Function in Thrombomodulin as it interacts with Thrombin
2001 Masters of Science, Chemistry
Department of Chemistry and Biochemistry, University of California, San Diego
1999 Bachelors of Science, Chemistry
Departamento de Química, Universidad del Valle, Cali, Colombia.

HONORS, AWARDS & FUNDING:

2023 AAUP Research Award
2022 AAUP Research Award
2021 AAUP Research Award
2020 AAUP Research Award
2019 Alexander v. Humboldt return fellowship
2019 AAUP Research Award
2018 AAUP Research Award
2017 AAUP Research Grant
2017 Faculty development award
2015 Faculty development award
2015 Committee for Professional Opportunities for Women travel award to present at the Biophysical Society meeting

INVITED TALKS:

- Speaker in a 3 member panel discussion titled: “pandemic viruses”. August 2021
- WCACS Meeting “Drug Resistance Pathways in the Malaria Parasite” February 2018.
- Seminar series at Universidad del Valle. "Apoptosis en el parásito causante de la malaria y el papel del citocromo c", July 2016
- Seminar series at Chemistry Department at Ursinus College, PA. "Programmed cell death pathway of the malaria parasite and the role of cytochrome C", September 2014
- ACS Northeast Regional Meeting Talk. "Programmed cell death pathway of the malaria parasite and the role of cytochrome C", October 2013
- Induction ceremony National Society for Collegiate Scholars. “Experience abroad: how to get out of your comfort zone” November 2013
- COST Meeting. “Quantitative proteomics of the malaria parasite” Corsica 2007.

PUBLICATIONS

- Adriana Patricia Corredor-Figueroa, Luz A. Parada, José J. Fuentes, **Judith H. Prieto**. Saliva-direct approach in the detection of SARS-CoV-2 in the lower-risk population in Colombia. *Health Science Reports*. **2023**.6 (1). e1016. <https://doi.org/10.1002/hsr2.1016>
- Hargobinder Kaur, Kailash Patra, Surendra K Kohli, Jacob Wozniak, **J Helena Prieto**, John R Yates Iii, David J Gonzalez, Chris J Janse, Joseph M Vinetz. Plasmodium Ookinete Invasion Complex Heteromultimeric, Chitinase-containing *Plasmodium falciparum* and *Plasmodium gallinaceum* Ookinete-secreted Protein Complex Involved in Mosquito Midgut Invasion. *Frontiers in Cellular and Infection Microbiology*, **2021** (10) 615343.
- Wang L, Delahunty C, Fritz-Wolf K, Rahlfs S, **Prieto JH**, Yates JR, and Becker K.Characterization of the 26S proteasome network in *Plasmodium falciparum*. *Scientific Reports*. **2015** Dec 7;5:17818
- Prieto JH**, Fischer E, Koncarevic S, Yates J, Becker K. Large-scale differential proteome analysis in *Plasmodium falciparum* under drug treatment. *Methods Mol Biol*. **2015**;1201: 269-79.
- Talman AM, **Prieto JH**, Marques S, Ubaida-Mohien C, Lawniczak M, Wass MN, Xu T, Frank R, Ecker A, Stanway RS, Krishna S, Sternberg MJE, Christophides GK, Graham DR, Dinglasan RR, Yates JR, Sinden RE. Proteomic analysis of the *Plasmodium* male gamete reveals the key role for glycolysis in flagellar motility. *Malaria Journal* **2014**, 13 (1):315
- Wang L, Delahunty C, **Prieto JH**, Rahlfs S, Jortzik E, Yates III JR, Becker K. Protein S-nitrosylation in *Plasmodium falciparum*. *Antioxid Redox Signal*. **2014**, 20(8):2923-2395
- Wass MN, Stanway R, Blagborough AM, Lal K, **Prieto JH**, Raine D, Sternberg MJ, Talman AM, Tomley F, Yates J, Sinden RE. Proteomic analysis of *Plasmodium* in the mosquito: progress and pitfalls. *Parasitology*. **2012** Aug;139(9):1131-45.
- Röseler A, **Prieto JH**, Iozef R, Hecker B, Schirmer H, Külzer S, Przyborski J, Rahlfs S, Becker K. Insight into the selenoproteome of the malaria parasite *Plasmodium falciparum*. *Antioxid Redox Signal*, **2012**, Jan 9 doi:10.1089/ars.2011.4276.
- Nebl T, **Prieto JH**, Kapp E, Smith B, Yates JR, Cowman A, Tonkin C. Quantitative in vivo analyses reveal calcium-dependent phosphorylation sites and identifies a novel component of the *Toxoplasma* invasion motor complex. *Plos Pathogens* **2011** Sep;7(9):e1002222.
- Guttman M, **Prieto JH**, Handel TM, Domaille PJ, Komives EA. Structure of the minimal interface between ApoE and LRP. *J Mol Biol*. **2010** Apr 30;398(2):306-19

- Guttman M, **Prieto JH**, Croy JE, Komives EA. Decoding of lipoprotein - receptor interactions; Properties of ligand binding modules governing interactions with ApoE. *Biochemistry*. 2010 Feb 16;49(6):1207-16.
- Lal K, Bromley E, Oakes R, **Prieto JH**, Sanderson SJ, Kurian D, Hunt L, Yates JR 3rd, Wastling JM, Sinden RE, Tomley FM. Proteomic comparison of four *Eimeria tenella* life-cycle stages: unsporulated oocyst, sporulated oocyst, sporozoite and second-generation merozoite. *Proteomics*. 2009 Oct;9(19):4566-76.
- Koncarevic S, Rohrbach P, Deponce M, Krohne G, **Prieto JH**, Yates J 3rd, Rahlfs S, Becker K. The malarial parasite *Plasmodium falciparum* imports the human protein peroxiredoxin 2 for peroxide detoxification. *Proc Natl Acad Sci U S A*. 2009 Aug 11;106(32):13323-8.
- Lal K, Bromley E, **Prieto JH**, Sanderson SJ, Yates JR, Wastling JM, Tomley FM, Sinden RE. Characterisation of *plasmodium* invasive organelles; an ookinete microneme proteome. *Proteomics*. 2009 Mar;9(5):1142-51.
- Prieto JH**, Koncarevic S, Park SK, Yates JR and Becker K. Differential proteome analysis in *Plasmodium falciparum* under drug treatment using stable isotope labelling, fractionation and multidimensional protein identification technology. *PLoS One*. 2008;3(12):e4098.
- Sanderson SJ, Xia D, **Prieto JH**, Yates JR, Heiges M, Kissinger J, Tomley F, Bromley E, Sinden R, Kalpana L, Wastling JM. Determining the protein repertoire of *Cryptosporidium parvum* sporozoites: a multidirectional approach. *Proteomics*. 2008, 8: 1398-1414.
- Xia D, Sanderson SJ, Jones AR, **Prieto JH**, Yates JR, Bromley E, Tomley FM, Lal K, Sinden RE, Brunk B, Roos D, Wastling JM. The Proteome of *Toxoplasma gondii*: Insights into Gene Expression and Annotation. *Genome Biology* 2008, 9, R:116
- Prieto JH**, Sampoli Benitez BA, Melacini G, Johnson DA, Wood MJ, Komives EA. Dynamics of the fragment of thrombomodulin containing the fourth and fifth epidermal growth factor-like domains correlate with function. *Biochemistry*. 2005 Feb 1;44(4):1225-33.
- Wood MJ, Becvar LA, **Prieto JH**, Melacini G, Komives EA. NMR structures reveal how oxidation inactivates thrombomodulin. *Biochemistry*. 2003 Oct 21;42(41):11932-42.

TEACHING EXPERIENCE

Instructor

Survey of Chemistry I and II
 General Chemistry I
 Concepts in Chemistry
 Biochemistry I
 Biochemistry II
 Biochemistry Lab
 Infectious Disease and Society
 Biophysical Techniques

Affiliations

American Chemical Society, Biophysical Society, Sigma Xi.