

## Curriculum Vitae

### **CECILIA I. ZURITA LOPEZ, PhD**

Assistant Professor of Biochemistry  
Chapman University  
Schmid College of Science and Technology  
Keck Center for Science and Engineering  
450 North Center Street, Orange, CA 92866  
(714) 516-5962 • ceclopez@chapman.edu

### **PROFILE**

Eight (8) years' experience in higher education: teaching biochemistry-related courses, undergraduate and graduate (Master's level) student mentoring, thesis advising, and contributing to the success to my institution. Thirteen (13) years' experience in community outreach related to STEM events: organizing and presenting workshops in English and Spanish and working with parents and students of all grade levels. Fifteen (15) years' experience in all aspects of academic research including laboratory techniques in biochemistry and molecular biology related to protein arginine methylation and enzyme characterization. This also includes laboratory safety, general management, student advising/training, presentations, manuscript preparation for publication, and grant writing in science and engineering laboratories.

### **EDUCATION**

Ph.D. Biochemistry & Molecular Biology 2011  
University of California, Los Angeles (UCLA)  
**Thesis:** Characterization of Eukaryotic Protein Arginine Methyltransferases: An Emerging Family of Regulatory Enzymes

B.S. Biochemistry, GPA 3.5 2004  
California State University, Los Angeles (Cal State LA)  
**Honors Thesis:** The Role of Sulfiredoxin on Peroxiredoxins upon H<sub>2</sub>O<sub>2</sub> Activation

### **RESEARCH TRAINING**

#### **Postdoctoral Researcher**

Epigenetic Protein Changes Using Whispering Gallery Mode Microresonators (Dr. Andrea Armani, Ray Irani Chair in Engineering and Materials Science and Professor of Chemical Engineering and Materials Science, Viterbi School of Engineering, University of Southern California (USC)) 2013-2014

Decoding the Signal Sequence that Governs SRP Co-translational Protein Localization (Dr. Shu-ou Shan, Professor, Division of Chemistry and Chemical Engineering, Caltech) 2012-2013

Characterization of Eukaryotic Protein Arginine Methyltransferase 7 (PRMT7) (Dr. Steven Clarke, Distinguished Professor, Department of Chemistry and Biochemistry, UCLA) 2011-2012

#### **Undergraduate Researcher**

Using Affinity Capillary Electrophoresis to Estimate Binding Constants Between ADP-Glucose Pyrophosphorylase and ATP (Dr. Frank A. Gomez, Professor, Department of Chemistry and Biochemistry, Cal State LA) 2000-2003

The Release of Vancomycin from Synthesized Fluoroalkyl Modified Poly(ethylene glycol) (Dr. Julia A. Kornfield, Professor of Chemical Engineering, Division of Chemistry and Chemical Engineering, Caltech). Summer 2002

## OTHER PROFESSIONAL TRAINING

Alt-Instruction Summer Institute. Six Workshops for Addressing Pedagogy during a Pandemic, Center for Effective Teaching and Learning, Cal State LA.	Summer 2020
Science Faculty for Inclusion Transformation, Equity Workshop Series. Six workshops, Center for Urban Education (USC), sponsored by the HHMI Inclusive Excellence grant.	Spring 2019 to Fall 2020
Teaching to Increase Diversity and Equity in STEM (TIDES), Association of American Colleges & Universities (AAC&U), Crown Plaza LAX, Los Angeles, CA.	06/2019
Leading Edge EdTech Summit, Loyola Marymount University, Los Angeles, CA	04/2019
Teaching Every Student: Practical Tools for STEM Education, 2019 Southern California PKAL Regional Network Meeting, Association of American Colleges & Universities (AAC&U), Shanahan Meeting Center, Harvey Mudd College.	03/2019
Symposium on Los Angeles-Based (LAB) Curriculum, Coordinator: Dr. Beth Hoffman, Special Assistant to the President on LA-Based Curriculum, Cal State LA.	05/2016
Proposal Development Workshop for the National Science Foundation (NSF)'s Major Research Instrumentation (MRI) Program, Quality Education for Minorities (QEM) Network, Linthicum Heights, MD.	08/2015
Faculty Research and Education Development (FRED) Program, Minority Affairs Committee, American Society for Cell Biology (ASCB), Houston, TX.	07/2015
GRIT: CSU Symposium on University Teaching, CSU Institute for Teaching and Learning and the Center for Effective Teaching and Learning (CETL), Cal State LA.	3/2015
New Faculty Mentoring and Grant Writing Workshop, Minority Affairs Committee, American Society for Biochemistry and Molecular Biology (ASBMB), Washington DC.	06/2014

## TEACHING EXPERIENCE

**Assistant Professor of Biochemistry**, Chemistry & Biochemistry, Chapman University. Fall 2021-Present  
Courses taught:

Undergraduate Level Courses:

Biomolecules (Biochemistry I Lecture, BCHM 335), taught twice (fall 2021 and fall 2022) ~90 total students. Includes topics such as an understanding of biochemistry (the study of the chemical and molecular interactions that occur in and constitute living organisms. An examination of structure and function of the fundamental building blocks of life (carbohydrates, fats, proteins, and nucleic acids).

General Chemistry II (Lecture, CHEM 150), taught once during spring 2022, enrollment ~30 students. This is a continuation of general chemistry I. It includes topics such as thermodynamics, chemical equilibrium, kinetics, solids and liquids, and electrochemistry.

**Assistant Professor of Biochemistry**, Chemistry & Biochemistry Department, California State University, Los Angeles. (Note: was promoted to Associate Professor in Spring 2021) 2014-Spring 2021  
Courses taught:

\*Contributed to course development; \*\*Contributed to assessing student writing.

Undergraduate Level Courses:

Life at the Molecular Level, (Biochemistry Lecture CHEM 431A/CHEM 4310), taught 3 times, and in progress (fall 2019) ~170 total students. Includes topics such as noncovalent interactions, thermodynamics, ionic equilibria and an overview of the four major macromolecules: nucleic acids, proteins, carbohydrates and lipids.

Enzyme Kinetics and Metabolism, (Biochemistry Lecture CHEM 431B / CHEM 4310/20), taught once, and in progress (fall 2019) ~13 total students. Includes topics such as how enzymes act as catalysts, measuring rates of enzyme-catalyzed reactions, how food is converted into energy, how plants convert light into energy, and how hormones control storage, synthesis, and breakdown of fat.

Transcription and Translation, (Biochemistry Lecture CHEM 431C / CHEM 4320), taught twice, ~40 total students. How nucleotide sequences are interpreted: how proteins read genetic information to choose specific genes for expression, transcribe the information into RNA, and process RNA molecules. Includes topics such as the structure of genetic information, DNA damage and repair, and cellular trafficking.

Introduction to General Biochemistry Techniques, (Biochemistry Laboratory CHEM 432A / CHEM 4311), taught two times, ~24 total students. All steps of protein purification to purify an enzyme and analyze its activity via traditional enzyme kinetic assays. Includes proper use of equipment: pipettes, centrifuges, UV/Vis spectrophotometer, affinity and gel filtration chromatography.

\*\*Writing for Chemists, (Lecture and Laboratory CHEM 3100), taught once each, ~55 students. Includes reinforcement of lecture topics such genre, audience, scientific journal organization (abstract, introduction, methods, results, discussion and references); writing conventions, grammar/mechanics, purpose, tenses, moves.

Introduction to Biomolecules: Carbohydrates, Amino Acids, Lipids and Nucleic Acids (Lecture CHEM 280 / CHEM 2300), taught two times, ~85 total students. Includes topics such as the chemistry of life; particles, atoms, and molecules; chemical/functional groups; polarity, H-bonds, solubility and hydrophobic interactions; the building blocks to macromolecules and supramolecular structures; protein function; nucleic acid structure and function.

\*Molecular Capstone (Lecture CHEM 4890), taught two times, ~30 total students. Students integrate and critically reflect upon concepts and approaches from two or more disciplines within chemistry to address a societal concern in a culminating research paper.

\*\*General Chemistry Laboratory (Laboratory CHEM 1100), taught once, ~24 total students. Students learn fundamental chemistry laboratory techniques.

Graduate Level Courses:

Protein Structure and Function (Lecture CHEM 507 / CHEM 5320). Graduate-level course. Taught three times, ~45 total students. Includes analysis of factors that determine native protein structure, stability and biological function. Recent advances in research literature.

\*Post-translational Modifications of Proteins (Lecture CHEM 5310). An introduction to the diversity and importance of post-translational modifications (PTMs) as they relate to human development, health, and disease. Recent advances in research literature.

## **Student Research Mentor**

2014-Present

Approximately 5-7 students in research laboratory every year

## **Master's and Honors Research Thesis Advisor**

2014-2021

As chair of the student thesis committee:

Defended: Twelve master's theses, five undergraduate honors theses

2014-2021

As *member* of the student thesis committee:

Approximately thirty-six master's and undergraduate honors theses

2014-2021

**Note:** Additional laboratory student researchers: five high school students, six undergraduate students and one post-baccalaureate student.

Summer / 1 Term

## OTHER ACADEMIC SERVICE

### **Unit / Departmental Level** (Chemistry & Biochemistry)

Chemistry and Biochemistry Club, ACS Student Chapter, <b>Faculty Advisor</b>	2014-2021
Assessment Committee, <b>Chair</b>	2019-2021
Recruitment and Retention Committee, <b>Chair</b>	2016-2017
Instructional Affairs Committee, <b>Chair</b>	2019-2021
Chemistry & Biochemistry Department / MORE Programs, <b>Undergraduate Advisor</b>	2016-2021
Elections Committee and Recruitment and Retention Committee, <b>Member</b>	2015-2016
Faculty Departmental Meetings, <b>Recorder</b>	2014-2015
Graduate Programs Admissions Committee, Elections Committee and Instructional Affairs Committee, <b>Member</b>	2014-2015

### **College Level**

Math, Physics, and Philosophy (MPP) DEI Mentor Schmid Faculty Search Committee, <b>Member</b>	2022-Present
Schmid Science Forum Speaker Series, <b>Co-organizer</b>	2021-2022
DEI Mentor Schmid Faculty Search Committee, <b>Member</b>	2021-2022
Inclusive Excellence, HHMI Grant, <b>Associate Director</b>	2018-2021
Radiation Safety Committee, <b>Member</b>	2015-2020
Academic Resources Committee (ARC), <b>Recorder</b>	2015-2016
NSS Preview Day	2014-2015

### **University Level**

Chicano/a, Latino/a Raza Graduation, Cross Cultural Center, <b>Keynote Speaker</b>	06/2016
Chemistry Demonstrations Student, "Cal State LA, Here We Come," EPIC America Reads and Counts Program, <b>Student Volunteer Coordinator</b>	2014-2021
Student Policy Committee, <b>Member</b>	2019-2021
Student Workshops, Great Outcomes for East Los Angeles (GO EAST LA) Program, <b>Guest Speaker</b>	02/2016
GO EAST LA Scholarship Committee, <b>Member</b>	2015-2016
Honors Convocation and Commencement, <b>Marshall</b>	2014-2018
Annual Student Symposium on Research, Scholarship and Creative Activities (RSCA) Symposium, Office of Research and Development, <b>Judge</b>	2015-2019
New Faculty Orientation, Center for Effective Teaching and Learning, (CETL), <b>Speaker</b>	09/2015
Raymond E. Garcia Memorial Award, <b>Co-founder</b> ( <i>raised approximately \$53,000, as of May 2019</i> ).	10/2014

## MEMBERSHIPS (PROFESSIONAL ORGANIZATIONS)

Southern California Chapter, American Chemical Society (ACS), American Society for Biochemistry and Molecular Biology (ASBMB), Society for Advancement of Chicanos and Native Americans in Science (SACNAS), American Society for Cell Biology (ASCB), Cal State LA Alumni Association.

## CONFERENCE PRESENTATIONS

- Protein Arginine Methyltransferases: A Springboard for Crosstalk*, MORE Programs Research Retreat, California State University, Los Angeles, poster presentation. UCLA Conference Center, Lake Arrowhead, CA. 09/2019
- Investigating the Interaction between Arginine 8 Methylation and Serine 10 Phosphorylation in Histone H3*, Annual Biomedical Research Conference for Minority Students (ABRCMS), Phoenix, AZ. **Invited speaker**. 11/2017
- Protein Arginine Methyltransferase 7 (PRMT7) Specifically Targets RXR Sites in Arginine Rich Regions: A Springboard for Crosstalk* American Society for Cell Biology (ASCB) National Meeting, San Diego, CA. 12/2015
- Using whispering gallery mode sensors to detect epigenetic changes in Histone H4* MORE Programs Research Retreat, California State University, Los Angeles, oral presentation. UCLA Conference Center, Lake Arrowhead, CA. 09/2013
- Formation of  $\omega$ -N<sup>G</sup>-Monomethylarginine as the Sole Product of Human Protein Arginine Methyltransferase 7 (PRMT7): a True Type III Methyltransferase?* **Zurita-Lopez, C.**; Sandberg, T.; Kelly, R. and Clarke, S.G. Cellular and Molecular Biology (CMB) Retreat, oral presentation. UCLA Conference Center, Lake Arrowhead, CA. 10/2010
- Human Protein Arginine Methyltransferase 7 (PRMT7) is not a Type II Methyltransferase.* **Zurita-Lopez, C.**; Sandberg, T.; Kelly, R. and Clarke, S.G. FASEB Biological Methylation: From DNA to Histones, poster presentation. Carefree, AZ. 06/2010
- Formation of  $\omega$ -N<sup>G</sup>-Monomethylarginine as the Sole Product of Human Protein Arginine Methyltransferase 7 (PRMT7): a True Type III Methyltransferase?* **Zurita-Lopez, C.**; Sandberg, T.; Kelly, R. and Clarke, S.G. ASBMB Experimental Biology Conference, oral and poster presentation. Anaheim, CA. 04/2010
- Formation of  $\omega$ -N<sup>G</sup>-Monomethylarginine as the sole product validates Protein Arginine Methyltransferase 7 as the first Type III Methyltransferase*, **Zurita-Lopez, C.**; Sandberg, T. and Clarke, S.G. Cellular and Molecular Biology (CMB) Retreat, poster presentation. UCLA Conference Center, Lake Arrowhead, CA. 10/2009
- The Role of Protein Arginine Methyltransferases in Immunological Responses* **Zurita-Lopez, C.**; Khare, S.; Yang, M.; Mamula, M. and Clarke, S.G. FASEB Biological Methylation: From DNA to Histones, poster presentation. Carefree, AZ. 06/2007
- Using Affinity Capillary Electrophoresis to Estimate Binding Constants Between ADP-Glucose Pyrophosphorylase and ATP* **Zurita, C.**; Gomez, F.A.; Borra, M.; Polder, N. and Meyer, C. HPLC 2003, poster presentation. Nice, France. 06/2003
- Using Affinity Capillary Electrophoresis in the Determination of Binding Constants for ADP-Glucose Pyrophosphorylase* **Zurita, C.**; Baumbach, R.; Meyer, C.; and Gomez, F.A. Fifteenth Annual California State University Biotechnology Symposium, poster presentation. Pomona, CA. 01/2003
- Estimating Binding Constants Between ADP-Glucose Pyrophosphorylase and ATP Using Capillary Electrophoresis* **Zurita, C.**; Borra, M.; Polder, N.; Meyer, C.; Gomez, F.A. Southern California Conference on Undergraduate Research (SCCUR), poster presentation. Pasadena, CA. 11/2002
- The Release of Vancomycin From Synthesized Fluoroalkyl Modified Poly(ethylene glycol)* **Zurita, C.**; Lammertink, R.G.; Kornfield, J.; Gomez, F.A. Summer Undergraduate Research Fellow – Minority Undergraduate Research Fellow (SURF-MURF) Program, the Center for the Science and Engineering of Materials (CSEM) Program, oral and poster presentation. 08/2002

<i>Using Affinity Capillary Electrophoresis to Estimate Binding Constants Between ADP-Glucose Pyrophosphorylase and Ligands</i> Kaddis, J.; <b>Zurita, C.</b> ; Borra, M.; Polder, N.; Meyer, C. and Gomez, F.A. <u>Society for Advancement of Chicanos and Native-Americans in Science National Conference (SACNAS)</u> poster presentation. Anaheim, CA.	09/2002
<i>On-Column Ligand Synthesis Coupled to Partial-Filling Affinity Capillary Electrophoresis.</i> Zhang, Y.; Kodama, C.; <b>Zurita, C.</b> and Gomez, F.A. <u>Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy</u> , (PITTCON 2002), poster presentation. New Orleans, LA.	03/2002
<i>Separation of DNA Fragments by Capillary Electrophoresis in Uncoated Silica Columns Using Hydroxypropylmethyl Cellulose as the Sieving Matrix</i> , Villareal, V.; <b>Zurita, C.</b> ; Zhang, Y. and Gomez, F. A. <u>Southern California American Chemical Society Undergraduate Research Conference</u> , poster presentation. Santa Barbara, CA.	04/2001
<i>On-Column Ligand Synthesis Coupled to Partial-Filling Affinity Capillary Electrophoresis</i> , Zhang, Y.; Kodama, C.; <b>Zurita, C.</b> ; and Gomez, F.A. <u>221st American Chemical Society National Meeting</u> , poster presentation. San Diego, CA.	03/2001

## **OTHER SPEAKER INVITATIONS AND SCIENTIFIC PRESENTATIONS**

“How to Present a Scientific Poster: Presentation and Formatting,” Organizer: Maria Manzanares, Associate Director, Student-Faculty Programs (SURF, WAVES, etc.), Caltech. Annual Speaker.	10/2020 to Present
BE WINNORs Career Talk, Xilinx-sponsored Program, Organizer: Deborah Won, Ph.D. Professor, Electrical Engineering, California State University, Los Angeles (Cal State LA).	03/2022
“Using Your Syllabus to Reach Diverse Students” Creating an Inclusive Learning Environment: An ASBMB Catalyst Conversation, Virtual Meeting, February, 2022	02/2022
Faculty Research Talk, Tri-beta, Biological Honors Society, Chapman University	10/2021
“Investigating the Interaction Between Arginine Methylation and Serine Phosphorylation in Histone H3, two Opposing Modifications?” Epigenomics and Cancer, Keck School of Medicine, University of Southern California (USC).	10/2019
“5 Simple Things You Can Do to Boost Your Academic Success,” Chemistry & Biochemistry Club, Cal State LA.	02/2019
“First Generation Faculty Panel” Mind Matters Initiative, University Library, Cal State LA.	03/2019
“How to ask for Letters of Recommendation,” SACNAS Student Chapter, Cal State LA.	09/2016
“How to Present Scientific Posters,” MORE Programs Summer Workshops, Annual Speaker.	2015-2020
“Exploring the Interaction Between Arginine Methylation and Serine Phosphorylation in Histone H3,” STEM-PLEDGE, University of California, Los Angeles (UCLA).	05/2016
“Life after the PhD,” Panelists: Diana Azurdia, Leyma De Haro, Shandee Dixon, Angelina Hernandez, Nadine Martinez, Monica Moreno, Maura Palacios Mejia, Benjamin Bush and Cecilia Zurita-Lopez, CSU-LSAMP BD, Cal State LA.	04/2015
“The Interaction Between Arginine Methylation and Serine Phosphorylation in Histone H3,” East Los Angeles College (ELAC).	11/2015
“Choosing a Research Mentor and Group,” MORE Programs Summer Workshops, Cal State LA.	08/2014
“Faculty Panel 1: Is a Post Doc Really Necessary?” Postdoctoral Researcher Panel, MORE Programs Retreat, California State University, Los Angeles, UCLA Conference Center, Lake Arrowhead, CA.	09/2013

## **AWARDS**

Emerging Scholar of the Year, Diverse: Issues in Higher Education.	2017
--	------

Program for Recognition of Undergraduate Distinction (PROUD) Scholar, California State University Louis Stokes Alliance for Minority Participation (LSAMP).	2014-2015
<i>Best Thematic Poster Award Winner: Genomics and Quantitative Proteomics Theme Meeting, \$250 prize</i> ASBMB Experimental Biology Conference, oral and poster presentation. Anaheim, CA.	05/2010
<i>Best Poster Presentation Winner, \$200 prize.</i> Cellular and Molecular Biology (CMB) Retreat, UCLA Conference Center, Lake Arrowhead, CA.	10/2009

## GRANTS

Co-PI, MRI: Acquisition of an MALDI TOF Instrument for of Research and Research training at CSULA, National Science Foundation (NSF), <b>\$206,749</b>	2019-2021
Associate Director, Inclusive Excellence Grant (5-year award), Howard Hughes Medical Center (HHMI), <b>\$1,000,000</b>	2018-2021
National Institute of General Medical Sciences (NIGMS)	
<ul style="list-style-type: none"> <li>The Crosstalk Between Arginine Methylation and Serine Phosphorylation in Histone H3, SC2 Award, 1SC2GM118202-01, <b>\$428,000.</b></li> </ul>	2016-2019
<ul style="list-style-type: none"> <li>Diversity Supplement Program. PA-12-149. Re: 3 DP2 OD007391-01S2, <b>\$45,000.</b></li> </ul>	2013-2014
Research, Scholarship and Creative Activity Mini-Grant, Office of Research and Development, University Awards and Leaves Committee, Cal State LA:	
<ul style="list-style-type: none"> <li>Investigating the Effects of UV light on PRMTs, <b>\$5,000.</b></li> </ul>	2016-2017
<ul style="list-style-type: none"> <li>Exploring Modifications in PGC-1<math>\alpha</math>: a protein activated by Insulin, <b>\$5,000.</b></li> </ul>	2015-2016
<ul style="list-style-type: none"> <li>Crosstalk between Methylation and Phosphorylation: Significance in Cellular Signaling, <b>\$5,000.</b></li> </ul>	2014-2015
National Institutes of Health (NIH)	
<ul style="list-style-type: none"> <li>Ruth L. Kirschstein National Research Service Award (NRSA) Individual Minority Access to Research Careers (MARC) Predoctoral Fellowship, Re: F31GM78761, <b>~\$180,000.</b></li> </ul>	2006-2010

## COMMUNITY INVOLVEMENT AND OUTREACH

LAUSD Mass Spectrometry Program, Curriculum Development, <b>Advisory Board Member</b>	2018-2021
5 <sup>th</sup> Grade Culmination Ceremony, City Terrace Elementary School, <b>Keynote Speaker</b>	June 2019
MORE Programs Open House, orientation session for parents of PhD-bound students, (presented in Spanish), <b>Annual Speaker</b>	2017-2021
Jacobo M. Patlán Memorial Scholarship, <b>Advisory Board Member</b>	2014-2021
College Bound Today (CBT), Montebello School District Scholastic Support Program, Schurr High School, Montebello, CA, <b>Volunteer Mentor</b>	2016-2018
LabTV, Discover the people shaping the future of science, medicine and the care of patients. Funded by the National Institutes of Health (NIH), <i>featured.</i>	2014-Present
Power Latina of the Week, a Latina Success Story, The <i>Adelante</i> Movement, <i>featured.</i>	2014-2015
Science Education, Stem Woman on Fire, Thor: The Dark World Ultimate Mentor Adventure. <i>Encouraging girls into STEM fields by partnering them with mentors, featured.</i>	2014-2015

## PUBLICATIONS (career total 21)

\*denotes student mentee, \*\*denotes Chapman student mentee

\*Mendoza, M., \*Mendoza, Ma., \*\*Lubrino, T., \*\*Briski, S., \*Osuji, I., \*Cuala, J., \*Ly, B., \*Ocegueda, I., \*Peralta, H., Garcia, B.A., and **Zurita-Lopez, C.I.** “Arginine methylation of the PGC-1 $\alpha$  C-terminus is Temperature Dependent” *ACS Biochemistry* 2022, manuscript under review.

\*Leal, J.A., \*Estrada-Tobar, Z.M., \*Wade, F., \*Mendiola, A.J.P., \*Meza, A., \*Mendoza, M., Nerenberg, P.S., **Zurita-Lopez, C.I.** “Phosphoserine inhibits neighboring arginine methylation in the RKS motif of histone H3. *Arch Biochem Biophys.* 2021, 698:108716.

Hudnut, A., Lash-Rosenberg, L., Xin, A., \*Leal Doblado, J., **Zurita-Lopez, C.I.**, Wang, Q., Armani, A.M. “Role of extracellular matrix in the biomechanical behavior of pancreatic tissue” *ACS Biomaterials Science & Engineering.* 2018, 4 (5), 1916-1923.

Yang, Y., Hadjikyriacou, A., Xia, Z., Gayatri, S., Kim, D., **Zurita-Lopez, C.I.**, \*Kelly, R., Guo, A., Li, W., Clarke, S.G., and Bedford, M. PRMT9 is a Type II methyltransferase that methylates the splicing factor SAP145. *Nature Commun.* 2015, 6:6428.

Feng, Y., Maity, R., Whitelegge, J.P., Hadjikyriacou, A., Li, Z., **Zurita-Lopez C.**, Al-Hadid, Q., Clark, A.T., Bedford, M.T., Masson, J.Y., Clarke, S.G. Mammalian protein arginine methyltransferase 7 (PRMT7) specifically targets RXR sites in lysine- and arginine-rich regions. *J Biol Chem.* 2013, 288(52), 37010-25.

Yang, M.L., Gee, A.J., Gee, R.J., **Zurita-Lopez, C.I.**, Khare, S., Clarke, S.G., and Mamula, M.J. Lupus autoimmunity altered by cellular methylation metabolism. *Autoimmunity.* 2013, 46(1), 21-31.

Young, B.D., Weiss, D.I., **Zurita-Lopez, C.I.**, Webb, K.J., Clarke, S.G., and McBride, A.E. Identification of Methylated Proteins in the Yeast Small Ribosomal Subunit: A Role for SPOUT Methyltransferases in Protein Arginine Methylation. *Biochemistry.* 2012, 51(25), 5091-5104.

**Zurita-Lopez, C.I.**, \*Sandberg, T., \*Kelly, R., and Clarke, S.G. Human protein arginine methyltransferase 7 (PRMT7) is a type III enzyme forming  $\omega$ -N<sup>G</sup>-monomethylated arginine residues. *J. Biol. Chem.* 2012, 287(11), 7859-7870.

Webb, K.J. Al-Hadid, Q. **Zurita-Lopez, C.I.**, Young, B.D., Lipson, R.S., and Clarke, S.G. The Ribosomal L1 Protuberance in Yeast is Methylated on a Lysine Residue Catalyzed by a Seven-Beta Strand Methyltransferase. *J. Biol. Chem.* 2011, 286(21), 18405-18413.

Rust, H.L., **Zurita-Lopez, C.I.**, Clarke, S.G. and Thompson, P.R. Mechanistic studies on the Transcriptional Coactivator Protein Arginine Methyltransferase 1. *Biochem.* 2011, 50(16), 3332-3345.

Butler, J.S., **Zurita-Lopez, C.I.**, Clarke, S.G., Bedford, M.T. and Dent, S.Y.R. Protein Arginine Methyltransferase 1 (PRMT1) Methylates Ash2L, A Shared Component of Mammalian Histone H3K4 Methyltransferase Complexes. *J. Biol. Chem.* 2011, 286(14), 12234-12244.

Webb, K.J., **Zurita-Lopez, C.I.**, Al-Hadid, Q., Laganowsky, A., Young, B.D., Lipson, R.S., Souda, P., Whitelegge, J.P. and Clarke, S.G. Yeast large subunit ribosomal protein Rpl3 contains a 3-methylhistidine residue whose modification is dependent upon the YIL110W methyltransferase. *J. Biol. Chem.* 2010, 285(48), 37598-37606.

Fisk, J.C., **Zurita-Lopez, C.I.**, Sayegh, J., Tomasello, D.L., Clarke, S.G. and Read, L.K. TbPRMT6 is a Type I protein arginine methyltransferase that contributes to cytokinesis in *Trypanosoma brucei*. *Eukaryotic Cell* 2010, 9(6), 866-877.

Lakowski, T.M., **Zurita-Lopez, C.I.**, Clarke, S.G. and Frankel, A. Approaches to measuring the activities of protein arginine N-methyltransferases. *Anal Biochem* 2009, 397(1), 1-11.



- Fisk, J.C., Sayegh J., **Zurita-Lopez, C.I.**, Menon, S.; Presnyak, V., Clarke, S.G. and Read, L.K. A type III protein arginine methyltransferase from the protozoan parasite *Trypanosoma brucei*. *J Biol Chem* 2009, 284(17), 11590-600.
- McBride, A.E., **Zurita-Lopez, C.I.**, Regis, A., Blum, E.; Conboy, A., Elf, S. and Clarke, S. Protein Arginine Methylation in *Candida Albicans*: Role in Nuclear Transport. *Euk Cell* 2007, 6(7), 1119-1129.
- Yao X., Li X., Toledo, F., **Zurita-Lopez, C.**, Gutova, M., Momand, J. and Zhou, F. Subattomole oligonucleotide and p53 cDNA determinations via a high-resolution surface plasmon resonance combined with oligonucleotide-capped gold nanoparticle signal amplification. *Anal Biochem* 2006, 354(2), 220-8.
- Kaddis, J., **Zurita, C.**, Moran, J., Borra, M.; Polder, N., Meyer, C.R. and Gomez, F.A. Estimation of Binding Constants for the Substrate and Activator of *Rhodobacter sphaeroides* adenosine 5'-diphosphate-glucose pyrophosphorylase using affinity capillary electrophoresis. *Anal Biochem* 2004, 327(2), 252-260.
- Villareal, V., Zhang, Y., **Zurita, C.**, Moran, J., Silva, I. and Gomez, F.A. Separation of DNA by Capillary Electrophoresis in Uncoated Silica Columns Using Hydroxypropylmethyl Cellulose as the Sieving Matrix, *Anall Lett* 2003, 36(2), 451-463.
- Villareal, V., Kaddis, J., Azad, M., **Zurita, C.**, Silva, I., Hernandez, L., Rudolph, M., Moran, J. and Gomez, F.A. Partial-filling Affinity Capillary Electrophoresis, *Anal Bioanal Chem* 2003, 376(6), 822-831.
- Zhang, Y., Kaddis, J., Silverio, C., **Zurita, C.**, and Gomez, F.A. On-column Enzyme-Catalyzed Microreactions Using Capillary Electrophoresis: Quantitative Studies, *J Cap Elec Micro Tech* 2002, 7(1&2), 1-9.
- Zhang, Y., Kodama, C., **Zurita, C.**, and Gomez, F.A. On-Column Ligand Synthesis Coupled to Partial-Filling Affinity Capillary Electrophoresis to Estimate Binding Constants of Ligands to a Receptor, *J Chrom A* 2001, 928, 233-241.