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Education

Doctor of Philosophy (2002-2007). University of Minnesota.

Bachelor of Science (1996-2001). Universidad Autónoma de Aguascalientes, México.

Positions

Associate Director (2015-present). Campus Office of Undergraduate Research Initiatives (COURI), the University of Texas at El Paso

Research Assistant Professor (2015-present). Department of Biological Sciences, the University of Texas at El Paso. Role of mitochondrial proteins in cell cycle control.

Assistant Instructor (2013-2014). Department of Pharmacology, UT-Southwestern Medical Center. Role of mitochondrial proteins in cell cycle control.

Postdoctoral Scholar (2007-2013). Department of Pharmacology, UT-Southwestern Medical Center/Howard Hughes Medical Institute (HHMI). Apoptosis mechanisms during mitosis.

Graduate Research Assistant (2002-2007). Department of Genetics, Cell Biology and Development, University of Minnesota. Chromosome biology, mitosis.

Research Technician (2001-2002). Department of Plant Physiology, Universidad Autónoma de Aguascalientes, Mexico. Genetic manipulation of *Citrus macrophylla*.

Research Intern (1998-2001). Departments of Plant Physiology and Neurobiology, Universidad Autónoma de Aguascalientes, Mexico. Various projects in two different labs.

Honors & Awards

National Academies Education Fellow in the Life Sciences (2016-2017). Participated in the HHMI Summer Institute on Scientific Teaching at Evergreen State College.

Best Dissertation Award in the Biological and Medical Sciences (2007). Awarded by the Graduate School Office, University of Minnesota.

Predoctoral Traineeship Award (2005-2007). Department of Defense Breast Cancer Research Program (BCRP)

Bacaner Award (2006). Awarded by the Minnesota Medical Foundation for excellence in creative basic science research.

Veneziale-Steer Award (2006). Awarded by the Minnesota Medical Foundation for outstanding basic research in the field of cellular growth regulation.

CONACyT Fellowship (2002-2005). Awarded by the Mexican Council for Science and Technology (CONACyT).

Publications**a. Articles (peer-reviewed, reverse chronological order)**

1. Olimpo JT, **Díaz-Martínez LA**, Bhatt JM, D'Arcy CE. Integration of RCR and Ethics Education into Course-Based Undergraduate Research Experiences in the Biological Sciences: A Needed Discussion. *J Microbiol Biol Educ.* 2017. 18(2): 18.2.45. PMID: 28861142
2. Karamysheva ZN, **Díaz-Martínez LA**, Warrington R, Yu H. Graded requirement for the spliceosome in cell cycle progression. *Cell Cycle.* 2015. 14(12): 1873-83. PMID: 25892155
3. **Díaz-Martínez LA**, Tian W, Li B, Warrington R, Jia L, Brautigam CA, Luo X, Yu H. The Cdc20-binding Phe box of the spindle checkpoint protein BubR1 maintains the mitotic checkpoint complex during mitosis. *J Biol Chem.* 2014 jbc.M114.616490. PMID: 25505175
4. **Díaz-Martínez LA**, Karamysheva ZN, Warrington R, Li B, Wei S, Xie XJ, Roth MG, Yu H. Genome-wide siRNA screen reveals coupling between mitotic apoptosis and adaptation. *EMBO J.* 2014 Jul 14. pii: e201487826. PMID: 25024437
5. Zaganjor E, Osborne JK, Weil LM, **Díaz-Martínez LA**, Gonzales JX, Singel SM, Larsen JE, Girard L, Minna JD, Cobb MH. Ras regulates kinesin 13 family members to control cell migration pathways in transformed human bronchial epithelial cells. *Oncogene.* 2013 Nov 18. doi: 10.1038/onc.2013.486. PMID: 24240690
6. Solomon DA, Kim T, **Díaz-Martínez LA**, Fair J, Elkahloun AG, Harris BT, Toretsky JA, Rosenberg SA, Shukla N, Ladanyi M, Samuels Y, James CD, Yu H, Kim JS, Waldman T. Mutational inactivation of STAG2 causes aneuploidy in human cancer. *Science.* 2011 Aug 19; 333(6045):1039-43. doi: 10.1126/science.1203619. PMID: 21852505
7. **Díaz-Martínez LA**, Beauchene NA, Furniss K, Esponda P, Giménez-Abián JF, Clarke DJ. Cohesin is needed for bipolar mitosis in human cells. *Cell Cycle.* 2010 May; 9(9):1764-73. PMID: 20436271
8. Giménez-Abián JF, **Díaz-Martínez LA**, Beauchene NA, Hsu WS, Tsai HJ, Clarke DJ. Determinants of Rad21 localization at the centrosome in human cells. *Cell Cycle.* 2010 May; 9(9):1759-63. PMID: 20404544
9. Beauchene NA, **Díaz-Martínez LA**, Furniss K, Hsu WS, Tsai HJ, Chamberlain C, Esponda P, Giménez-Abián JF, Clarke DJ. Rad21 is required for centrosome integrity in human cells independently of its role in chromosome cohesion. *Cell Cycle.* 2010 May; 9(9):1774-80. PMID: 20404533
10. Karamysheva Z, **Díaz-Martínez LA**, Crow SE, Li B, Yu H. Multiple anaphase-promoting complex/cyclosome degrons mediate the degradation of human Sgo1. *J Biol Chem.* 2009 Jan 16; 284(3):1772-80. doi: 10.1074/jbc.M807083200. PMID: 19015261
11. **Díaz-Martínez LA**, Giménez-Abián JF, Clarke DJ. Cohesin is dispensable for centromere cohesion in human cells. *PLoS One.* 2007 Mar 28; 2(3): e318. PMID: 17389909
12. **Díaz-Martínez LA**, Giménez-Abián JF, Clarke DJ. Regulation of centromeric cohesion by sororin independently of the APC/C. *Cell Cycle.* 2007 Mar 15; 6(6):714-24. PMID: 17361102
13. **Díaz-Martínez LA**, Giménez-Abián JF, Azuma Y, Guacci V, Giménez-Martín G, Lanier LM, Clarke DJ. PIASgamma is required for faithful chromosome segregation in human cells. *PLoS One.* 2006 Dec 20; 1:e53. PMID: 17183683
14. **Díaz-Martínez LA**, Kang Y, Walters KJ, Clarke DJ. Yeast UBL-UBA proteins have partially redundant functions in cell cycle control. *Cell Div.* 2006 Dec 4; 1:28. PMID: 17144915

15. Andrews CA, Vas AC, Meier B, Giménez-Abián JF, **Díaz-Martínez LA**, Green J, Erickson SL, Vanderwaal KE, Hsu WS, Clarke DJ. A mitotic topoisomerase II checkpoint in budding yeast is required for genome stability but acts independently of Pds1/securin. *Genes Dev.* 2006 May 1; 20(9):1162-74. PMID: 16651657
16. Kang Y, Vossler RA, **Díaz-Martínez LA**, Winter NS, Clarke DJ, Walters KJ. UBL/UBA ubiquitin receptor proteins bind a common tetraubiquitin chain. *J Mol Biol.* 2006 Mar 3;356(4):1027-35. PMID: 16405905
17. Andrews CA, **Díaz-Martínez LA**, Giménez-Abián JF, Guacci V, Vas AC, Clarke DJ. Evidence that the yeast spindle assembly checkpoint has a target other than the anaphase promoting complex. *Cell Cycle.* 2005 Nov;4(11):1555-7. PMID: 16258265
18. Giménez-Abián JF, **Díaz-Martínez LA**, Wirth KG, De la Torre C, Clarke DJ. Proteasome activity is required for centromere separation independently of securin degradation in human cells. *Cell Cycle.* 2005 Nov;4(11):1558-60. PMID: 16205121
19. Giménez-Abián JF, **Díaz-Martínez LA**, Wirth KG, Andrews CA, Giménez-Martín G, Clarke DJ. Regulated separation of sister centromeres depends on the spindle assembly checkpoint but not on the anaphase promoting complex/cyclosome. *Cell Cycle.* 2005 Nov;4(11):1561-75. PMID: 16205119
20. Giménez-Abián JF, **Díaz-Martínez LA**, Waizenegger IC, Giménez-Martín G, Clarke DJ. Separase is required at multiple pre-anaphase cell cycle stages in human cells. *Cell Cycle.* 2005 Nov;4(11):1576-84 PMID: 16177575

b. Reviews & Commentaries

21. **Díaz-Martínez LA**, Clarke DJ. Visualizing chromosome segregation in live cells. *Cell Cycle.* 2016 15(14): 1811
22. **Díaz-Martínez LA**, Clarke DJ. Sororin is tethered to Cohesin SA2. *Cell Cycle.* 2015 14(8):1133. PMID: 25695517
23. **Díaz-Martínez LA**, Yu H. The complexity of life and death decisions in mitosis. *Mol Cell Onc* (2014) 2(2): e969658
24. **Díaz-Martínez LA**, Yu H. Sgo1 as a guardian of chromosome stability. *Cell Cycle.* 2012 Feb 15;11(4):650-1. doi: 10.4161/cc.11.4.19361. PMID: 22374669
25. **Díaz-Martínez LA**, Clarke DJ. Timeless makes some time for itself. *Cell Cycle.* 2011 Jul 15;10(14):2254. PMID: 21670590
26. **Díaz-Martínez LA**, Yu H. Cohesin: a multi-purpose chromatin glue. *J Mol Cell Biol.* 2009 Dec;1(2):58-60. doi: 10.1093/jmcb/mjp014. PMID: 19684050
27. **Díaz-Martínez LA**, Clarke DJ. Chromosome cohesion and the spindle checkpoint. *Cell Cycle.* 2009 Sep 1;8(17):2733-40. PMID: 19652532
28. **Díaz-Martínez LA**, Giménez-Abián JF, Clarke DJ. Chromosome cohesion - rings, knots, orcs and fellowship. *J Cell Sci.* 2008 Jul 1;121(Pt 13):2107-14. doi: 10.1242/jcs.029132. PMID: 18565823
29. **Díaz-Martínez LA**, Yu H. Running on a treadmill: dynamic inhibition of APC/C by the spindle checkpoint. *Cell Div.* 2007 Jul 24;2:23. PMID: 17650307
30. Clarke DJ, Vas AC, Andrews CA, **Díaz-Martínez LA**, Giménez-Abián JF. Topoisomerase II checkpoints: universal mechanisms that regulate mitosis. *Cell Cycle.* 2006 Sep;5(17):1925-8. PMID: 16940751

31. Clarke DJ, **Díaz-Martínez LA**, Giménez-Abián JF. Anaphase promoting complex or cyclosome? *Cell Cycle*. 2005 Nov;4(11):1585-92. PMID: 16237278
32. **Díaz-Martínez L**, Clarke DJ. Self-regulating model for control of replication origin firing in budding yeast. *Cell Cycle*. 2003 Nov-Dec;2(6):576-8. PMID: 14512772

c. Book Chapters

Díaz-Martínez, Laura Angelica; and Yu, Hongtao (December 2010) Chromosome Condensation and Cohesion. In: *ENCYCLOPEDIA OF LIFE SCIENCES 2010*, John Wiley & Sons, Ltd: Chichester <http://www.els.net/> [DOI:10.1002/9780470015902.a0022534]

d. Online Courses

Díaz-Martínez LA, Echegoyen LE. Chapter 2: Integrity and ethical decision making. Part of the course Research as a Transferable Skill. In process of development for Oxford University Press.

Conference Presentations and Invited Talks

a. Invited talks

University of Texas System Louis Stokes Alliance for Minority Participation (UT LSAMP) Student Research Conference (2017)

NIH Future Leaders of Research Conference. National Institutes of Health, Bethesda, MD (2015)

X Ibero-american Congress on Cell Biology. Mexico City (2007)

b. Selected Conference Presentations

Díaz-Martínez LA, Karamysheva Z, Warrington R., and Yu H. Mitochondrial module and p31-comet coordinate death and adaptation during mitotic arrest. Annual Meeting American Society of Cell Biology. New Orleans, LA (December 2013)

Díaz-Martínez LA, Karamysheva Z, Kim S and Yu H. Cohesin subunit Scc1 promotes caspase activation and cell death in mitosis. *The Cell Cycle*. Cold Spring Harbor Laboratory, New York. (May 2010)

Díaz-Martínez LA, Karamysheva Z and Yu H. Genome-wide siRNA screen identifies human gene networks that maintain genomic stability. 49th Annual Meeting. American Society of Cell Biology San Diego, CA. (December 2009)

Díaz-Martínez LA, Karamysheva Z, Warrington R and Yu H. Genome-wide siRNA screen identifies novel cell cycle pathways. HHMI Meeting, Janelia Farms, MD (May 2009)

Díaz-Martínez LA, Giménez-Abián JF and Clarke DJ. PIASy regulates cohesin-independent cohesion during mitosis. Era of Hope Meeting. Breast Cancer Research Program (BRCP), Department of Defense. Baltimore, MD (June 2008)

Teaching, Mentoring and Education Research Experience & Training

a. Teaching Experience

Professional Development Workshop Facilitator (2015-present). UTEP. Workshops for undergraduate researchers.

Adjunct Professor (2014). Dallas County Community College District. Undergraduate Course: Biology for Science Majors II (Biol1407). Lecture and lab.

Cell Regulation Graduate Program (2013). UT-Southwestern Medical Center. Course: Journal Club.

Summer Research Advisor (2013-2014). UT-Southwestern Medical Center. Advisor for high school students.

Teaching Assistant. (2004-2005). University of Minnesota. Undergraduate Courses: Cell Biology (Biol4004) and Genetics (Biol4003).

b. Teaching and Education Research Training

Disciplinary Based Education Research (DBER) Design and Implementation Course (2017). American Society for Microbiology.

Fellow- National Academies Summer Institute (2016). The Evergreen State College/Howard Hughes Medical Institute.

Designing Scientific Teaching Tools for Biochemistry and Molecular Biology Education Workshop (2014). Sponsored by the American Society of Biochemistry and Molecular Biology.

c. Research Mentoring

Undergraduate Mentees

Miguel Carrillo Alvarado (03/2015-08/2015)- UTEP

Pavel Gonzalez (08/2015-05/2017)- UTEP

Vanessa Enriquez (08/2015-05/2016)- UTEP

Daisy Guerra (09/2016-05/2017)-UTEP

Madison Berger (09/2016-present)-UTEP

Seham Azzam (04/2017-present)- UTEP

Erica Herrera (08/2017-present)- UTEP

High school mentees

Natalie Lujan (10/2015-05/2016)- Transmountain Early College High school

Funding

a. Current Extramural Funding

- NIH-NIDA 2R25DA033613. O'Dell (PI) Diaz-Martinez LA (co-PI) 05/01/2017-04/30/2022

Title: Summer Mentoring And Research Training: Methods In Neuroscience of Drug-abuse (SMART-MIND). Amount: \$513,007

- NSF-DUE 1565063. Echegoyen (PI) Diaz-Martinez (co-PI) 08/01/2016-03/31/2020

Title: Achieve Career Success in Science through Excellence (ACSScellence). Award Amount: \$999,614

- NSF 1727867 Olimpo (PI) Diaz-Martinez (co-PI) 08/2017-08/2018

Title: RCN-UBE Incubator: Consortium for the Integration of Ethical Research Practices into Course-based Undergraduate Research Experiences in the Biological Sciences. Award amount: \$49,989

- BD Biosciences Research Grant. Diaz-Martinez (PI) 12/20/2016

Title: A novel mitochondria-mitosis connection and its role in cancer development. Award amount: \$10,000

b. Completed Funding

- The University of Texas at El Paso- University Research Incentive Program. Diaz-Martinez (PI) 02/16/2016-08/31/2017 Title: Mitochondria-mitosis cross-talk and the development of cancer. Award Amount: \$5,000

- Research Supplement to Promote Diversity in Health-Related Research (2013-2014). National Cancer Institute of the National Institutes of Health (NIH). R01CA125269.

- Predoctoral Traineeship Award (2005-2007). Diaz-Martinez (PI) Department of Defense Breast Cancer Research Program (BCRP) Office of the Congressionally Directed Medical Research Programs (CDMRP). BC043245, W81XWH-05-1-0310

University Service

UTEP Edge Advisory Board (2016-present)

UTEP Quality Enhancement Plan Development Committee (06/2015-10/2015)

Graduate Student Research Expo Judge (2015, 2016)

LSAMP Student Research Conference Judge (2016)

Professional Society Membership & Service

American Society for Microbiology. Member.

American Society of Cell Biology. Member.

Co-chair of the Communications Subcommittee. Committee for Postdocs and Students (COMPASS). American Society for Cell Biology. (2013-2014)

Science Education & Outreach

USA Science and Engineering Festival (2014). Represented the American Society of Cell Biology through a hands-on microscopy activity for the public.

Research mentoring for high-school students. (2013) UT-Southwestern Medical Center. Mentored high school students during 10-week summer research projects.

Microscopy for kids. UT Southwestern Medical Center (2012-2013). Volunteered to design and lead microscopy sessions with kindergarteners in the Dallas Independent School District.

Outreach at UT-Southwestern (2010-2014). Participated in the STARS program doing outreach activities with high school students.

United to Serve (2007). UT-Southwestern Medical Center science and health fair.

Freelance science writer for La Jornada, Ciencia and the COMPASS Blog.

Other Professional Activities

NSF panelist (2016)

Ad-hoc reviewer: Journal of Cellular Biochemistry