

# Curriculum Vitae

## Daniel Cifuentes, Ph.D.

71 East Concord St, K425

617-358-4521

[dcb@bu.edu](mailto:dcb@bu.edu)

<http://profiles.bu.edu/display/49521405>

ORCID ID# 0000-0001-5442-4843

August 29<sup>th</sup>, 2022

### ACADEMIC TRAINING:

1996 – 2000 B.S. University of Barcelona, Barcelona (Spain), Biochemistry

2000 – 2007 Ph.D. University of Barcelona - Institute for Research in Biomedicine (Spain); Biochemistry (Supervisor: Joan J. Guinovart)

### ACADEMIC APPOINTMENTS:

2007 – 2008 Postdoctoral Scholar in Biochemistry - Institute for Research in Biomedicine (Spain) (Supervisor: Joan J. Guinovart)

2008 – 2013 Postdoctoral Scholar in Genetics and Molecular Biology, Yale University (Supervisor: Antonio Giraldez)

2013 – 2015 Associate Research Scientist, Genetics Department, Yale University

Nov 1<sup>st</sup>, 2015

- Present Assistant Professor, Department of Biochemistry, Boston University

### HONORS:

1998-1999 Undergraduate Research Fellowship. Spanish Ministry of Science.

2001-2004 Ph.D. fellowship from Catalan Government.

2007 Ph.D. Summa Cum Laude, University of Barcelona, Barcelona (Spain)

2008 Postdoctoral fellowship, Spanish Ministry of Science, gratefully declined.

2008-2010 Postdoctoral fellowship from Ramon Areces Foundation.

2013-2015 NIH/NICHD **K99** grant HD071968-01A1 (**PI**: Cifuentes)

2016 Mr. Peter Paul Professorship, Boston University

2016-2018 NIH/NICHD **R00** HD071968-03 (**PI**: Cifuentes)

### DEPARTMENTAL AND UNIVERSITY COMMITTEES:

#### *Boston University School of Medicine, Boston, MA*

2016 – Present Member, Review panel Undergraduate Research Opportunities

2016 – Present Director, Boston University RNA Club

2016 – Present PIBS program recruitment interviews

## CV— Daniel Cifuentes, PhD

### *Department of Biochemistry, Boston University School of Medicine, Boston, MA*

- 2017 – Present Member, Seminar Organizing Committee
- 2017 – Present Member, Biochemistry Department Retreat Organizing Committee
- 2018 Co-organizer, joint meeting Biochemistry & Microbiology Departments
- 2018 Member, Faculty Recruitment Committee for the Department of Biochemistry
- 2018 Member, Committee to select candidates for the Russek's Achievement day
- 2021 Member, Committee to select candidates for the Russek's Achievement day
- 2021 Member, Franzblau Travel Award Committee
- 2022 Member, Joint Faculty Recruitment Committee for Biochemistry & Biology

### *Boston University, Center for Translational Science Institute*

- 2017 CTSI Pilot Grant Reviewer
- 2020 CTSI Pilot Grant Reviewer

### *Boston University, Center for Translational Science Institute*

- 2018 GSI Pilot Grant Reviewer
- 2022 GSI Pilot Grant Reviewer

### *Boston University School of Medicine, Thesis Committees*

- 2016 – 2020 Member, Thesis advisory committee, Julia Berthet (Supervisor: Dr. Varelas)
- 2018 – Present Member, Thesis advisory committee, Anita He (Supervisor: Dr. Fisher)
- 2018 – Present Member, Thesis advisory committee, Adeline Maschulat (Supervisor: Dr. Varelas)
- 2020 – Present Member, Thesis advisory committee, Sallieu Jalloh (Supervisor: Dr. Gummuluru)
- 2022 – Present Member, Thesis advisory committee, Thomas Lontis (Supervisor: Dr. Grishok)
- 2022 – Present Member, Thesis advisory committee, Emily Sparago (Supervisor: Dr. Blower)
- 2022 – Present Member, Thesis advisory committee, Elizabeth Chavez (Supervisor: Dr. Douam)
- 2022 – Present Member, Thesis advisory committee, Jiayi Li (Supervisor: Dr. Green)

### *Extramural Thesis Committees*

- 2019 Extramural member, Thesis defense committee, Daniel Foster (Supervisor: Dr. Frank Slack, Harvard University)

**TEACHING EXPERIENCE AND RESPONSIBILITIES:**

***Boston University Graduate Medical Sciences***

- 2016 – Present GE701. Principles of Genetics and Genomics (Role: lecturer, 3 h).  
2017 – Present MM730. A1 Biological Core Technologies (Role: lecturer, 4 h)  
2017 – Present BI777. Techniques in Biochemistry, Cell, and Molecular Biology (Role: lecturer, 2 h).  
2019 MB721. Graduate Biochemistry (Role: lecturer, 2 h).  
2017 – Present MB721. Graduate Biochemistry (Role: lecturer, 2 h).

***Extramural Teaching***

- 2001 – 2007 Catalan Board of Teachers special maintenance courses aimed at high school teachers. University of Barcelona (Spain). (Role: lecturer, 40 h)  
2001 – 2007 Special introductory courses on Biochemistry aimed at secondary school students. University of Barcelona (Spain). (Role: lecturer, 40 h)  
2002 – 2003 Teaching assistant in the Biochemistry and Molecular Biology Department, School of Chemistry. University of Barcelona (Spain). (Role: Teaching Assistant, 60 h)  
2002 Teacher of the “Optical and electronic microscopy Workshop”. Autonomous University of Barcelona (Spain). (Role: lecturer, 4 h)

**MAJOR MENTORING ACTIVITIES (total= 3 postdocs, 1 PhD students)**

**POSTDOCTORAL TRAINEES**

- 2016 – Present Dmitry Kretov (BU, postdoctoral fellow) – Ongoing  
2016 – 2018 Andrew Shafik (BU, postdoctoral fellow) – Next: Postdoc at Emory University  
2020 – Present Imrat (BU, postdoctoral fellow) – Ongoing

**PHD STUDENTS**

- 2020 - PRESENT Stephen Ross (BU, PhD student, Department of Microbiology). Joint appointment with Dr. Elke Mühlberger’s laboratory – Ongoing

**OTHER MENTORING ACTIVITIES:**

**UNDERGRADUATE STUDENTS:**

Total number = 11

Number of international exchange students = 3

Number of Undergraduate Research Opportunity Program awards = 5

- 2016 - 2017 Madhav Sambhu. Awarded *UROP’17* Spring and Fall research scholarship - Next: Medical Student at Boston University School of Medicine  
2017 Angel Martin Mallo. - visiting undergraduate from Francisco de Vitoria University (Spain). Next: PhD program of Applied Medicine and Biomedicine at Centro de Investigación Médica Aplicada (Spain)

## CV— Daniel Cifuentes, PhD

- 2018 Pablo Perez Larrubia. - visiting undergraduate from Francisco de Vitoria University (Spain). Next: Pharmacy at Madrid, Spain.
- 2018 Arya Akram. – practicum student of the Master graduate Program in Biomedical Research Technologies (Boston University). Next: Research Trainee in Gynecologic Oncology at Brigham and Women's Hospital.
- 2019 Bridget Hallisey. Awarded *UROP '19* Spring and Summer research – Next: Head Coach at Bridget Hallisey Parent Coaching
- 2019 Emily King. – Student of the NSF Research Experiences for Undergraduates (NSF-REU) Program. Next: Msc program of Biomedical Informatics at Washington University in St. Louis
- 2020 Maria Miguelez Sanchez. - visiting undergraduate from Francisco de Vitoria University (Spain). Next: MSc program of Bioinformatics and Systems Biology at Amsterdam University.
- 2018 Siyu Wu. – practicum student of the Master graduate Program in Biomedical Research Technologies (Boston University).
- 2021 - Present Elaine Park. Awarded *UROP '21* Summer and Fall research scholarship, and *UROP '22* Summer research scholarship – Ongoing
- 2022 - Present Thora McIsaac (at Cornell) Summer research student. Next: Sophomore at Cornell.
- 2022 - Present Samuel Wu (at BU) Awarded *UROP '22* Summer research scholarship – Ongoing
- 2022 - Present Noah Layne (at BU) Awarded *UROP '22* Summer research scholarship - Ongoing

### OTHER PROFESSIONAL ACTIVITIES:

#### PROFESSIONAL SOCIETIES: MEMBERSHIPS, OFFICES, AND COMMITTEE ASSIGNMENTS

- 2016 - Present Member, *RNA Society*
- 2016 - 2018 Member, *American Society of Hematology*
- 2016 - 2018 Member, *Society of Developmental Biology*
- 2002 - 2007 Member, *Spanish Society of Biochemistry and Molecular Biology*

### Editorial Boards:

- 2021- Present Gest Editor, *Frontiers in Molecular Biosciences*

### AD HOC REVIEWING

- 2015 - Present Molecular Cell, Nucleic Acids Research, RNA, Trends in Genetics, Nature Communications, Nature Structural & Molecular Biology, Development, Genes and Evolution, Methods, Biomolecules, EMBO Journal, Journal of Developmental Biology, Scientific Reports, RNA Biology, Science Advances.

**MAJOR COMMITTEE ASSIGNMENTS:**

**Study Sections:**

**National**

**National Institutes of Health:**

- 2021 Ad hoc member for the MIRAA (R35) NIH study section.  
2022 Ad hoc member for the BBHV NIH study section.

**International:**

- 2017 Grant reviewer Biotechnology and Biological Sciences Research Council (UK).  
2020 Grant reviewer for the Israel Science Foundation (Israel).

**OTHER SUPPORT:**

**Current:**

- 2019 – 2024 NIH/NIGMS - R01GM130935-03  
Title: “*Analysis of non-canonical functions of microRNAs*”  
Total funds (including indirect costs): **\$1,039,500**  
Role: **PI**
- 2019 – 2021 NIH/NIAID - R21AI147285-01  
NCE 06/30/2022 Title: “*Deep characterization of the biogenesis and function of Ebola virus microRNAs*”  
Total funds (including indirect costs): **\$455,160**  
Role: **co-PI - Cifuentes** (contact)/ **Mühlberger**
- 2020 – 2022 NIH/NIGMS - R21GM138951-01  
Title: “*Developing a high-throughput method to validate microRNA biogenesis in vivo*”  
Total funds (including indirect costs): **\$455,460**  
Role: **PI**
- 2019 – 2023 NIH/NIGMS - R01GM136132-01  
Title: “*Non-canonical activation of heterotrimeric G protein signaling in vivo*”  
Total funds (including indirect costs): **\$1,750,000**  
Role: **co-Investigator**
- 2021 – 2023 Kilachand Award, Boston University  
Title: “*Uncovering the role of microRNAs as permissive drivers of evolution*”  
Total funds (including indirect costs): **\$500,000**  
Role: **co-PI (contact PI)**
- 2021 – 2023 RNA Society Award  
Title: “*Boston University RNA Salon*”  
Total funds (including indirect costs): **\$2,000**  
Role: **PI**
- 2021 – 2022 Center for Translational Science Institute Seed Grant  
Title: “*Modeling chronic kidney disease anemia in zebrafish*”  
Total funds (including indirect costs): **\$35,000**  
Role: **co-PI - Cifuentes** (contact)/ **Chitalia**

## CV— Daniel Cifuentes, PhD

- 2022 – 2023 OTD Ignition Award, Boston University  
Title: “*Development of a high-throughput quantitative RNA-binding protein activity assay*”  
Total funds (including indirect costs): **\$75,000**  
Role: **PI**
- 2022 – 2023 Biochemistry Department, Boston University  
Title: Early Career Development Award  
Total funds (including indirect costs): **\$20,000**  
Role: **Mentor of Fellow Dmitry Kretov**
- 2022 – 2025 Howard Hughes Medical Institute  
Title: Emerging Pathogens Initiative  
Total funds (including indirect costs): **\$1,000,000**  
Role: **PI**

### Past Other Support:

- 2013 – 2015 NIH/NICHD - K99HD071968  
Title: “*Analysis of the Molecular Machinery of microRNA-processing pathways*”  
Total funds (including indirect costs): **\$ 217,334**  
Role: **PI**
- 2016 – 2019 NIH/NICHD - R00HD071968  
Title: “*Analysis of the Molecular Machinery of microRNA-processing pathways*”  
Total funds (including indirect costs): **\$747,000**  
Role: **PI**
- 2016 Peter Paul Professorship  
Title: Career Development Award  
Total funds (including indirect costs): **\$20,000**  
Role: **PI**
- 2017 Genome Science Institute Seed Grant  
Title: “*Decoding the epitranscriptomic role of 2'-O-methylation during vertebrate embryogenesis*”  
Total funds (including indirect costs): **\$20,000**  
Role: **PI**
- 2018 Center for Translational Science Institute Seed Grant  
Title: “*Deep characterization of the biogenesis and function of EBOV-encoded small RNAs*”  
Total funds (including indirect costs): **\$12,000**  
Role: **co-PI - Cifuentes (contact)/ Mühlberger**
- 2019 Genome Science Institute Seed Grant  
Title: “*Role of microRNAs in channeling cell fate determination*”  
Total funds (including indirect costs): **\$10,000**  
Role: **PI**
- 2020 R01GM130935-S1- Equipment purchase supplement  
Title: “*Role of microRNAs in channeling cell fate determination*”  
Total funds (including indirect costs): **\$84,000**  
Role: **PI**

**PATENTS:**

4/2022 U.S. Provisional Appl. No.: **63/328,360**. Title: “Nucleic acid interaction reporter and uses thereof”

**INVITED LECTURES, CONFERENCE ORAL PRESENTATIONS AND WORKSHOPS:**

**Invited Lectures**

***Institutional:***

- 5/2016 “*Uncovering dynamic RNA-protein interactions during vertebrate embryogenesis*” Boston University, Department of Dermatology, **Boston, MA**.
- 4/2018 “*miR-144/451 cluster: The Trojan horse of hematopoietic microRNAs*” Boston University, Department of Microbiology, **Boston, MA**.
- 5/2018 “*miR-451-mediated control of erythropoiesis in health and disease*” Boston University, Department of Medicine, Nephrology section, **Boston, MA**.
- 12/2018 “*miR-144/451 cluster: The Trojan horse of hematopoietic microRNAs*” Boston University, Biology Department, **Boston, MA**.
- 3/2019 “*miR-144/451 cluster: The Trojan horse of hematopoietic microRNAs*” Boston University, GEARS, **Boston, MA**.
- 4/2019 “*miR-144/451 cluster: The Trojan horse of hematopoietic microRNAs*” Boston University, Dental School, **Boston, MA**
- 2/2020 “*Non-canonical processing of miRNAs during erythropoiesis*” Boston University, Department of Pharmacology, **Boston, MA**.

***Regional/Local:***

- 12/2014 “*Deciphering the post-transcriptional regulatory networks during vertebrate embryogenesis*” Harvard University - GEARS: **Boston, MA**.
- 01/2015 “*Uncovering dynamic RNA-protein interactions during vertebrate embryogenesis*” University of Massachusetts, Mol. Medicine: **Worcester, MA**
- 04/2016 “*Uncovering dynamic RNA-protein interactions during vertebrate embryogenesis*” Connecticut Valley Zebrafish Meeting, Tufts University, **Boston, MA**.
- 05/2018 “*miR-144/451 cluster: The Trojan horse of hematopoietic microRNAs*” Connecticut Valley Zebrafish Meeting, Harvard University, **Boston, MA**.
- 04/2019 “*miR-144/451 cluster: The Trojan horse of hematopoietic microRNAs*” Northeast Regional Society for Developmental Biology Meeting. **Woods Hole, MA**
- 09/2019 “*miR-144/451 cluster: The Trojan horse of hematopoietic microRNAs*” Alnylam, **Boston, MA**
- 10/2020 “*miR-144/451 cluster: The Trojan horse of hematopoietic microRNAs*” New England Biolabs, **Ipswich, MA**.
- 03/2022 “*microManaging cell differentiation*” Harvard University, RNA Institute, **Boston, MA**.

**National:**

- 12/2014 “Uncovering dynamic RNA-protein interactions during vertebrate embryogenesis” University of California, **Irvine, CA.**
- 02/2015 “Uncovering dynamic RNA-protein interactions during vertebrate embryogenesis” University of Oregon. **Oregon, OR.**
- 11/2017 “miR-144/451 cluster: The Trojan horse of hematopoietic microRNAs” Stowers Institute for Medical Research, **Kansas City, MO.**
- 04/2018 “miR-144/451 cluster: The Trojan horse of hematopoietic microRNAs” UC Davis, **Davis, CA.**
- 05/2018 “Editing The Zebrafish Genome To Understand The Role Of microRNAs In Hematopoiesis” 2<sup>nd</sup> Annual Advances in Transgenic Technology USA Congress. **Boston, MA.**
- 09/2021 “microManaging cell differentiation” Ohio State University. **Ohio, IL (zoom)**
- 11/2021 “microManaging cell differentiation” Louisiana State University, **Baton Rouge, LA.**

**International:**

- 03/2014 “Deciphering the post-transcriptional regulatory networks during vertebrate embryogenesis” IX Microsymposium on Small RNAs: Vienna, **Austria.**
- 10/2014 “Deciphering the post-transcriptional regulatory networks during vertebrate embryogenesis” University of Copenhagen, Department of Biology, **Denmark.**
- 01/2015 “Deciphering the post-transcriptional regulatory networks during vertebrate embryogenesis” Symposium “Independent Junior Group Leader in Experimental Systems Biology”: Berlin, **Germany.**
- 12/2020 “Non-canonical processing of miRNAs during erythropoiesis” International Conference on Cell and Experimental Biology (**zoom**)
- 06/2022 “microManaging cell differentiation” 4<sup>th</sup> Aegean Conference "The long and the short of non-coding RNAs". Rhodes, **Greece.**

**Conference Oral Presentations**

**National:**

- 01/2016 “Uncovering dynamic RNA-protein interactions during vertebrate embryogenesis” Keystone Meeting on Small RNA Silencing: **Keystone, CO.**
- 08/2016 “Uncovering dynamic RNA-protein interactions during vertebrate embryogenesis” 75th Society for Developmental Biology Meeting, **Boston, MA.**
- 05/2022 “The miR-144/Hmgn2 regulatory axis orchestrates chromatin regulation during erythropoiesis” Keystone Meeting on “Small Regulatory RNAs: From Bench to Bedside” **Santa Fe, NM.**



**International:**

- 06/2019 “Crosstalk between canonical and Ago2-dependent miRNA processing” 3<sup>rd</sup> Aegean Conference "The long and the short of non-coding RNAs". Crete, **Greece**.
- 06/2019 “A negative feedback loop between Dicer and miR-144 dampens canonical microRNAs and maximizes the processing of miR-451” Keystone Meeting on Small Regulatory RNAs, Daejeon, **South Korea**.

**Workshops**

**National:**

- March 7, 2016 CSHL Course Workshop on Leadership in Bioscience. Cold Spring Harbour, NY.

**BIBLIOGRAPHY:**

ORCID: 0000-0001-5442-4843

<https://www.ncbi.nlm.nih.gov/myncbi/1DaofpMSgze5s/bibliography/public/>

**Total Citations:** 3097 (1425 since 2017)

**H-factor:** 16

**Original, Peer Reviewed Articles:**

1. Guil S, de La Iglesia N, Fernández-Larrea J, **Cifuentes D**, Ferrer JC, Guinovart JJ, Bach-Elias M. *Alternative splicing of the human proto-oncogene c-H-ras renders a new Ras family protein that trafficks to cytoplasm and nucleus*. **Cancer Research**. 2003 Sep 1;63(17):5178-87. PMID: 14500341.  
**Impact Factor: 12.7**
2. Cid E, **Cifuentes D**, Baqué S, Ferrer JC, Guinovart JJ. *Determinants of the nucleocytoplasmic shuttling of muscle glycogen synthase*. **FEBS Journal**. 2005 Jun;272(12):3197-213. doi: 10.1111/j.1742-4658.2005.04738.x. PMID: 15955076.  
**Impact Factor: 5.5**
3. Rezende GL, Logullo C, Meyer L, Machado LB, Oliveira-Carvalho AL, Zingali RB, **Cifuentes D**, Galina A. *Partial purification of tightly bound mitochondrial hexokinase from maize (*Zea mays* L.) root membranes*. **Brazilian Journal of Medical and Biological Research**. 2006 Sep;39(9):1159-69. doi: 10.1590/s0100-879x2006000900003. PMID: 16981044.  
**Impact Factor: 2.6**
4. Vilchez D, Ros S, **Cifuentes D**, Pujadas L, Vallès J, García-Fojeda B, Criado-García O, Fernández-Sánchez E, Medraño-Fernández I, Domínguez J, García-Rocha M, Soriano E, Rodríguez de Córdoba S, Guinovart JJ. *Mechanism suppressing glycogen synthesis in neurons and its demise in progressive myoclonus epilepsy*. **Nature Neuroscience**. 2007 Nov;10(11):1407-13. doi: 10.1038/nn1998. Epub 2007 Oct 21. PMID: 17952067.  
**Impact Factor: 25**

5. **Cifuentes D**, Martínez-Pons C, García-Rocha M, Galina A, Ribas de Pouplana L, Guinovart JJ. *Hepatic glycogen synthesis in the absence of glucokinase: the case of embryonic liver*. **Journal of Biological Chemistry**. 2008 Feb 29;283(9):5642-9. doi: 10.1074/jbc.M706334200. Epub 2007 Dec 28. PMID: 18165236.

Impact Factor: **5.1**

6. Flores E, **Cifuentes D**, Fernández-Novell JM, Medrano A, Bonet S, Briz MD, Pinart E, Peña A, Rigau T, Rodríguez-Gil JE. *Freeze-thawing induces alterations in the protamine-1/DNA overall structure in boar sperm*. **Theriogenology**. 2008 Jun;69(9):1083-94. doi: 10.1016/j.theriogenology.2008.01.022. Epub 2008 Mar 24. PMID: 18359506.

Impact Factor: **2.7**

7. Pescador N, Villar D, **Cifuentes D**, Garcia-Rocha M, Ortiz-Barahona A, Vazquez S, Ordoñez A, Cuevas Y, Saez-Morales D, Garcia-Bermejo ML, Landazuri MO, Guinovart J, del Peso L. *Hypoxia promotes glycogen accumulation through hypoxia inducible factor (HIF)-mediated induction of glycogen synthase 1*. **PLoS One**. 2010 Mar 12;5(3):e9644. doi: 10.1371/journal.pone.0009644. PMID: 20300197.

Impact Factor: **3.2**

8. **Cifuentes D**, Xue H, Taylor DW, Patnode H, Mishima Y, Cheloufi S, Ma E, Mane S, Hannon GJ, Lawson ND, Wolfe SA, Giraldez AJ. *A novel miRNA processing pathway independent of Dicer requires Argonaute2 catalytic activity*. **Science**. 2010 Jun 25;328(5986):1694-8. doi: 10.1126/science.1190809. Epub 2010 May 6. PMID: 20448148.

- [Cited in 923 papers](#) (source: Google Scholar).

- Article recommended in Faculty 1000 (F1000)

- Article previewed in Cell (Leading Edge, vol.141, issue 7, p1095 June 25, 2010)

Impact Factor: **48**

9. Sander JD, Dahlborg EJ, Goodwin MJ, Cade L, Zhang F, **Cifuentes D**, Curtin SJ, Blackburn JS, Thibodeau-Beganny S, Qi Y, Pierick CJ, Hoffman E, Maeder ML, Khayter C, Reyon D, Dobbs D, Langenau DM, Stupar RM, Giraldez AJ, Voytas DF, Peterson RT, Yeh JR, Joung JK. *Zinc-finger-nuclease engineering by context-dependent assembly (CoDA)*. **Nature Methods**. 2011 Jan;8(1):67-9. doi: 10.1038/nmeth.1542. Epub 2010 Dec 12. PMID: 21151135.

- [Cited in 701 papers](#), (source: Google Scholar).

- Article recommended in Faculty 1000 (F1000)

Impact Factor: **28**

10. Zhu C, Smith T, McNulty J, Rayla AL, Lakshmanan A, Siekmann AF, Buffardi M, Meng X, Shin J, Padmanabhan A, **Cifuentes D**, Giraldez AJ, Look AT, Epstein JA, Lawson ND, Wolfe SA. *Evaluation and application of modularly assembled zinc-finger nucleases in zebrafish*. **Development**. 2011 Oct;138(20):4555-64. doi: 10.1242/dev.066779. PMID: 21937602.

Impact Factor: **6.8**

11. **Yoda M\***, **Cifuentes D\***, Izumi N, Sakaguchi Y, Suzuki T, Giraldez AJ, Tomari Y. *Poly(A)-specific ribonuclease mediates 3'-end trimming of Argonaute2-cleaved precursor microRNAs*. **Cell Reports**. 2013 Nov 14;5(3):715-26. doi: 10.1016/j.celrep.2013.09.029. Epub 2013 Oct 24. PMID: 24209750

\* **Equal contributors**

Impact Factor: **9.4**

12. Hoffman EJ, Turner KJ, Fernandez JM, **Cifuentes D**, Ghosh M, Ijaz S, Jain RA, Kubo F, Bill BR, Baier H, Granato M, Barresi MJ, Wilson SW, Rihel J, State MW, Giraldez AJ. *Estrogens Suppress a Behavioral*

*Phenotype in Zebrafish Mutants of the Autism Risk Gene, CNTNAP2. Neuron.* 2016 Feb 17;89(4):725-33. doi: 10.1016/j.neuron.2015.12.039. Epub 2016 Jan 28. PMID: 26833134.

Impact Factor: 17

13. Vejnar CE, Moreno-Mateos MA, **Cifuentes D**, Bazzini AA, Giraldez AJ. *Optimization Strategies for the CRISPR-Cas9 Genome-Editing System. Cold Spring Harbor Protocols.* 2016 Oct 3;2016(10). doi: 10.1101/pdb.top090894. Review. PMID: 27698246.

Impact Factor: 1.3

14. Vejnar CE, Moreno-Mateos MA, **Cifuentes D**, Bazzini AA, Giraldez AJ. *Optimized CRISPR-Cas9 System for Genome Editing in Zebrafish. Cold Spring Harbor Protocols.* 2016 Oct 3;2016(10). doi: 10.1101/pdb.prot086850. PMID: 27698232.

Impact Factor: 1.3

15. Kretov DA, Shafik AM, **Cifuentes D**. *Assessing miR-451 Activity and Its Role in Erythropoiesis. Methods in Molecular Biology.* 2018;1680:179-190. doi: 10.1007/978-1-4939-7339-2\_12. PMID: 29030849.

Impact Factor: 1.1

16. Kumaradevan S, Lee SY, Richards S, Lyle C, Zhao Q, Tapan U, Jiangliu Y, Ghumman S, Walker J, Belghasem M, Arinze N, Kuhnen A, Weinberg J, Francis J, Hartshorn K, Kolachalama VB, **Cifuentes D**, Rahimi N, Chitalia VC. *c-Cbl Expression Correlates with Human Colorectal Cancer Survival and Its Wnt/β-Catenin Suppressor Function Is Regulated by Tyr371 Phosphorylation. American Journal of Pathology.* 2018 Aug;188(8):1921-1933. doi: 10.1016/j.ajpath.2018.05.007. Epub 2018 Jul 17. PMID: 30029779.

Impact Factor: 4.3

17. Marivin A, Morozova V, Walawalkar I, Leyme A, Kretov DA, **Cifuentes D**, Dominguez I, Garcia-Marcos M. *GPCR-independent activation of G proteins promotes apical cell constriction in vivo. Journal of Cell Biology.* 2019 May 6;218(5):1743-1763. doi: 10.1083/jcb.201811174. Epub 2019 Apr 4. PMID: 30948426.

Impact Factor: 10.5

18. Vejnar CE, Abdel Messih M, Takacs CM, Yartseva V, Oikonomou P, Christiano R, Stoeckius M, Lau S, Lee MT, Beaudoin JD, Musaev D, Darwich-Codore H, Walther TC, Tavazoie S, **Cifuentes D**†, Giraldez AJ†. *Genome wide analysis of 3' UTR sequence elements and proteins regulating mRNA stability during maternal-to-zygotic transition in zebrafish. Genome Research.* 2019 Jul;29(7):1100-1114. doi: 10.1101/gr.245159.118. Epub 2019 Jun 21. PMID: 31227602.

† Co-corresponding author.

Impact Factor: 9

19. Kretov DA, Walawalkar IA, Mora-Martin A, Shafik AM, Moxon S, **Cifuentes D**. *Ago2-Dependent Processing Allows miR-451 to Evade the Global MicroRNA Turnover Elicited during Erythropoiesis. Molecular Cell.* 2020 Apr 16;78(2):317-328.e6. doi: 10.1016/j.molcel.2020.02.020. Epub 2020 Mar 18. PMID: 32191872.

- Article previewed in Molecular Cell (Vol. 78, issue 5, p808 June 4, 2020)

Impact Factor: 18

20. Hekman RM, Hume AJ, Goel RK, Abo KM, Huang J, Blum BC, Werder RB, Suder EL, Paul I, Phanse S, Youssef A, Alysandratos KD, Padhorny D, Ojha S, Mora-Martin A, Kretov D, Ash PEA, Verma M, Zhao J, Patten JJ, Villacorta-Martin C, Bolzan D, Perea-Resa C, Bullitt E, Hinds A, Tilston-Lunel A, Varelas X, Farhangmehr S, Braunschweig U, Kwan JH, McComb M, Basu A, Saeed M, Perissi V, Burks EJ, Layne MD, Connor JH, Davey R, Cheng JX, Wolozin BL, Blencowe BJ, Wuchty S, Lyons SM, Kozakov D, **Cifuentes D**, Blower M, Kotton DN, Wilson AA, Mühlberger E, Emili A. *Actionable Cytopathogenic Host*

*Responses of Human Alveolar Type 2 Cells to SARS-CoV-2. Molecular Cell.* 2020 Dec 17;80(6):1104-1122.e9. doi: 10.1016/j.molcel.2020.11.028. Epub 2020 Nov 19. PMID: 33259812.

Impact Factor: 18

21. Floro J, Dai A, Metzger A, Mora-Martin A, Ganem NJ, **Cifuentes D**, Wu CS, Dalal J, Lyons SM, Labadorf A, Flynn RL. *SDE2 is an essential gene required for ribosome biogenesis and the regulation of alternative splicing. Nucleic Acids Research.* 2021 Sep 20;49(16):9424-9443. doi: 10.1093/nar/gkab647. PMID: 34365507.

Impact Factor: 17

22. Hume AJ, Heiden B, Olejnik J, Suder EL, Ross S, Scoon WA, Bullitt E, Ericsson M, White MR, Turcinovic J, Thao TTN, Hekman RM, Kaserman JE, Huang J, Alysandratos KD, Toth GE, Jakab F, Kotton DN, Wilson AA, Emili A, Thiel V, Connor JH, Kemenesi G, **Cifuentes D**, Mühlberger E. *Recombinant Lloviu virus as a tool to study viral replication and host responses. PLoS Pathogens.* 2022 Feb;18(2):e1010268. doi: 10.1371/journal.ppat.1010268. eCollection 2022 Feb. PMID: 35120176.

Impact Factor: 6.8

23. Shang R, Kretov D, Adamson SI, Treiber T, Vedanayagam J, Chuang JH, Meister G, **Cifuentes D**, Lai EC. *Regulated dicing of pre-mir-144 via reshaping of its terminal loop Nucleic Acids Research.* 2022 Jul 22;50(13):7637-7654. doi: 10.1093/nar/gkac568. PMID: 35801921.

Impact Factor: 17

#### Proceedings of Meetings and Invited Papers:

1. Fernández-Novell JM, **Cifuentes D**, Ferrer JC and Guinovart JJ “Biotechnology, Microbiology and Secondary School” in Modern Multidisciplinary Applied Microbiology: Exploiting Microbes and Their Interactions 2006 DOI: 10.1002/9783527611904

#### Textbook Chapters:

1. **Cifuentes D**, Guinovart JJ. “From Leloir to Sols or From glycogen synthase to glucokinase and viceversa” (in Spanish) In: *The presence of Alberto Sols in modern medicine.*

#### Textbooks and Monographs:

- 1.- Fernández-Novell JM, **Cifuentes D** “Bioquímica Experimental per a petits i grans” (in Catalan) 2009.