

MARIELA CORTÉS LÓPEZ

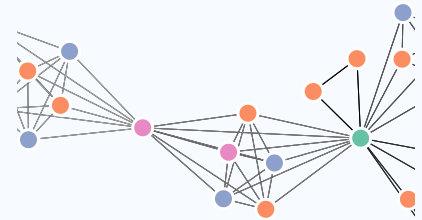
I am interested in RNA biology, particularly RNA processing. I have experience analyzing bioinformatic data for diverse projects, mainly using R. I enjoy to use public available data to complement my own research and explore other biological questions.

EDUCATION

- current
|
2017
- **PhD, Biology**
Julian König's Lab 📍 Institute of Molecular Biology, Mainz, Germany
 - Working on dissecting alternative splicing networks using high throughput mutagenesis approaches.
- 2016
|
2012
- **B.S., Genomics**
Licenciatura en Ciencias Genómicas
📍 Universidad Nacional Autónoma de México, Cuernavaca, Mexico
 - Thesis: "CircRNA accumulation in the aging mouse brain"

RESEARCH EXPERIENCE

- 2017
|
2017
- **Research Assistant**
Pedro Miura's Lab 📍 University of Nevada, Reno
 - Scientific technician position, collaborating in RNA related bioinformatics projects.
- 2017
|
2016
- **Undergraduate Researcher**
Pedro Miura's Lab 📍 University of Nevada, Reno
 - Internship and bachelor thesis project.
 - Developing a computational pipeline to analyze RNA-Seq data in order to identify circRNA transcripts.
 - Collaboration in several projects inside the group but also with other groups from UNR (Dr. Alexander van der Linden group) and external (Dr. Brian Johnson from UC Davis and Dr. Joe Chakkalakal from Rochester University).
- 2015
|
2013
- **Undergraduate Researcher**
Otto Geiger's Lab 📍 Centro de Ciencias Genómicas, Cuernavaca, Mexico
 - Project: "Bacteria with a phospholipid methyltransferase activity can synthesize their own choline and glycine betaine"
 - Training in basic molecular biology and lipidomics skills.



View this CV online with links at nickstrayer.me/datadrivencv/

CONTACT

✉ m.corteslopez@imb-mainz.de

🐦 [alt_spliced](https://twitter.com/alt_spliced)

🔗 github.com/mcortes-lopez

🔗 <https://mcortes-lopez.netlify.app/>

in

<https://www.linkedin.com/in/mcortes-lopez/>

🎓 <https://scholar.google.es/citations?user=XStCpl4AAAAJ>

LANGUAGE SKILLS

R

Python

Bash

SQL

AWK

Made with the R package [page-down](#).

The source code is available on github.com/nstrayer/cv.

Last updated on 2020-12-27.

2014
|
2014

- **Summer Undergraduate Researcher**
Roger Summon's Lab (as part of MISTI-Mexico)
📍 MIT EAPS, Cambridge, MA, USA
 - Participation in MISTI-Mexico Workshop (June 26th, 2014).
 - Training in basic analysis of MS data.



TEACHING EXPERIENCE

2016
|
2016

- **Presentation on CRISPR-Cas9 technology to high school students**
Youth Science Institute at UC Davis's Tahoe Environmental Research Center
📍 Incline Village, NV
 - Together with colleague Maebh Lynch

2015
|
2015

- **Human Genomics Course (GEN_2015)**
Undergraduate Program in Genomic Sciences
📍 UNAM, Cuernavaca, Mexico
 - Teacher Assistant under direction of Dr. Enrique Morett and Dr. Xavier Soberón

2014
|
2014

- **Co-organizer of Seminar on Paleogenomics¹**
Licenciatura en Ciencias Genómicas 📍 Cuernavaca, Mexico | Virtual
 - Together with Javier Blanco and Arturo Anaya



SELECTED PUBLICATIONS, POSTERS, AND TALKS

2018
|
2018

- **Decoding a cancer-relevant splicing decision in the RON proto-oncogene using high-throughput mutagenesis²**
Nature Communications
 - Braun, Simon, Mihaela Enculescu, Samarth T. Setty, **Mariela Cortés-López**, Bernardo P. de Almeida, FX Reymond Sutandy, Laura Schulz, Anke Busch, Markus Seiler, Stefanie Ebersberger, Nuno L Barbosa-Morais, Stefan Legewie, Julian König, Kathi Zarnack

2018
|
2018

- **Global accumulation of circRNAs during aging in *Caenorhabditis elegans*³**
BMC Genomics
 - **Cortés-López, Mariela**, Matthew R. Gruner, Daphne A. Cooper, Hannah N. Gruner, Alexandru-Ioan Voda, Alexander M. van der Linden, and Pedro Miura.

- 2017
|
2017

●

Loss of adult skeletal muscle stem cells drives age-related neuromuscular junction degeneration⁴
eLife

- Liu, Wenxuan, Alanna Klose, Sophie Forman, Nicole D. Paris, Lan Wei-Lapierre, Mariela Cortés-López, Aidi Tan, Morgan Flaherty, Pedro Miura, Robert T. Dirksen, and Joe V. Chakkalakal.

- 2017
|
2017

●

Genome-wide circRNA profiling from RNA-seq data⁵
Humana Press

- Cooper, Daphne A., Mariela Cortés-López, and Pedro Miura.

- 2016
|
2016

●

CircRNA accumulation in the aging mouse brain⁶
Scientific Reports

- Gruner, Hannah, Mariela Cortés-López, Daphne A. Cooper, Matthew Bauer, and Pedro Miura

- 2016
|
2016

●

Focus: epigenetics: emerging functions of circular RNAs⁷
Yale Journal of Biology and Medicine

- Cortés-López, Mariela, and Pedro Miura.



COURSES, MEETINGS, TALKS, AND POSTERS

- 2020
|
2020

●

RNA 2020
RNA Society

📍 Virtual

- Poster Presentation: “The patterns of Alu exonisation in human cancer”

- 2020
|
2020

●

EMBL-EMBO Symposium The Complex Life of RNA
EMBL Heidelberg

📍 Virtual

- Poster presentation: “Decoding alternative splicing in CD19 exon 2 using a high-throughput mutagenesis screen”

- 2019
|
2019

●

RMU-RNA Salon

📍 Frankfurt, Germany

- Short Talk: “The patterns of Alu exonisation in human cancers”

- 2019
|
2019

●

PacBio SMRT Leiden
Leiden University

📍 Leiden, Netherlands

- Poster Presentation and flashlightning talk “Decoding the splicing regulatory decisions using high-throughput mutagenesis coupled with long-read sequencing”

- 2019
|
2019

●

RNA 2019
RNA Society

📍 Krakow, Poland

- Poster presentation: “The patterns of Alu exonisation in human cancers”

- 2019
|
2019
- **RNA Informatics Meeting**
Wellcome Trust Conferences  Hixton, UK
 - Poster Presentation and flashlightning talk - "The patterns of Alu exonisation in human cancers"
- 2018
|
2018
- **LCG European Symposium**
UNAM Campus Paris  Paris, France
 - Short Talk: "Analysis of the cis-regulatory landscape controlling RON splicing"
- 2018
|
2018
- **EMBL-EMBO Symposium The Complex Life of RNA**
EMBL Heilderberg  Heidelberg, Germany
 - Poster presentation: "The patterns of Alu exonisation in human cancers"
- 2017
|
2017
- **Gene Regulation by the Numbers**
Institute of Molecular Biology, Mainz  Mainz, Germany
 - Poster presentation: "Analysis of the cis-regulatory landscape controlling RON splicing"
- 2017
|
2017
- **Otto Warburg International Summer School and Research Symposium on RNA regulation and non-coding RNA function**
CAS-MPG Partner Institute for Computational Biology  Shanghai, China
 - Poster presentation: "Analysis of the cis-regulatory landscape controlling RON splicing". Best poster award.
- 2016
|
2016
- **Keystone Symposium in Non Coding RNA and Enhancers**
 Santa Fe, NM, USA
 - Poster presentation: "CircRNA accumulation in the aging mouse brain" with colleague Hannah Gruner.
- 2016
|
2016
- **Undergraduate Research Symposium**
University of Nevada, Reno  Reno, NV, USA
 - Short Talk and Poster Presentation: "Accumulation of CircRNAs in the aging mouse brain"