

# JOSELYN C. CHÁVEZ-FUENTES

I am an enthusiastic PhD Student interested on transcriptional regulation. I have wet-lab experience working with plants and *Drosophila melanogaster*, as well as dry-lab experience analyzing bacterial genomes from public databases. During the last four years, I have developed R packages for my own research project, and for managing the regulonDB database in the R environment. Besides my research project, I enjoy teaching R and organizing workshops as a board member of the Community of Developers in Software for Bioinformatics (CDSB), the Mexican Network of Bioinformatics (RMB), and as co-founder of the chapter R-Ladies Cuernavaca, part of the global initiative R-Ladies.



## 👤 GROUPS

current  
|  
2019

- **Board Member of the Community of Developers in Software for Bioinformatics CDSB<sup>1</sup>**
  - Teaching and organizing annual workshops available online<sup>2</sup>.
- **Board Member of the Bioinformatics Network of Mexico RMB<sup>3</sup>**
  - Teaching and organizing monthly bioinformatics short courses available online<sup>4</sup>.
- **Co-founder of R-Ladies Cuernavaca<sup>5</sup>**
  - Teaching and organizing meetups available online<sup>6</sup>

current  
|  
2020

current  
|  
2019

## 🎓 EDUCATION

current  
|  
2017

- **PhD. Candidate, Biochemical Sciences** 📍 Biotechnology Institute, UNAM  
Enrique Merino's Lab
  - Thesis: Analysis of transcriptional regulatory elements among bacterial and archaeal phyla.

2017  
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2015

- **M.Sc., Biochemical Sciences** 📍 Biotechnology Institute, UNAM  
Viviana Valadez-Graham's Lab
  - Thesis: Role of the proteins dAtrx and Daddl1 in the telomeric maintenance of *Drosophila melanogaster* (honors thesis project).

2013  
|  
2009

- **B.S., Biotechnology Engineer** 📍 UPIIG-IPN  
Silao, Mexico
  - Thesis: Analysis of the PvuATXR3h gene regulation in secondary roots and during the nodule organogenesis of *Phaseolus vulgaris*.

View this CV online with links at  
[josschavezf.github.io/cv](https://josschavezf.github.io/cv)

## CONTACT

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## LANGUAGE SKILLS



Made with the R package  
[pagedown](#).

The source code is available on  
[github.com/josschavezf/cv](https://github.com/josschavezf/cv).

Last updated on 2021-04-16.

## RESEARCH EXPERIENCE

2013  
|  
2012

- **Undergraduate Researcher**  
Raúl Álvarez-Venega's Lab  CINVESTAV-IPN
  - Analysis of the PvuATXR3h gene regulation in secondary roots and during the nodule organogenesis of *Phaseolus vulgaris*.

## TEACHING EXPERIENCE

2020

- **R for Bioinformatics**  
Graduate course  Biotechnology Institute, UNAM
  - Part of the Graduate program of Biochemical Sciences.

2020

- **CDSB Workshop 2020: Building workflows with RStudio and Bioconductor for single cell RNA-seq analysis.<sup>7</sup>**  
TIBs 2020  Virtual format
  - Instructor and organizer.

2020

- **Introduction to R and RStudio<sup>8</sup>**  
RMB mini courses  Virtual format
  - Instructor and organizer.

2019

- **Programming with Perl**  
Graduate course  Biotechnology Institute, UNAM
  - Part of the Graduate program of Biochemical Sciences.

2019

- **Programming with R: writing packages**  
RUNA, Peru  Virtual format
  - One-week invited online course.

## POSTS

2021

- **First Annual Meeting R-Ladies Mexico<sup>9</sup>**  
R-LadiesMX blog
  - Summarizing the first annual meeting of all R-Ladies chapters in Mexico.

2021

- **Preparing for an Accessible Online Conference<sup>10</sup>**  
UseR2021 blog
  - Accessibility guidelines for virtual conferences.

## R PACKAGES

- 2020 • **regutools<sup>11</sup>**  
Co-author and Maintainer  Bioconductor
- 2020 • **erba<sup>12</sup>**  
Author and Maintainer  GitHub

## PUBLICATIONS

- 2021 • **Complementary Tendencies in the Use of Regulatory Elements  
Transcription Factors, Sigma Factors, and Riboswitches in Bacteria and Archaea**  
Journal of Bacteriology  
· Joselyn Chávez, Damien P. Devos, Enrique Merino 
- 2020 • **Programmatic access to bacterial regulatory networks with regutools**  
Bioinformatics  
· Joselyn Chávez\*, Carmina Barberena-Jonas\*, Jesus E Sotelo-Fonseca\*, José Alquicira-Hernández, Heladia Salgado, Leonardo Collado-Torres, Alejandro Reyes
- 2017 • **dAdd1 and dXNP prevent genome instability by maintaining HP1α localization at Drosophila telomeres**  
Chromosoma  
· Joselyn Chavez\*, Juan Manuel Murillo-Maldonado\*, Vanessa Bahena, Ana Karina Cruz, América Castañeda-Sortibrán, Rosario Rodriguez-Arnaiz, Mario Zurita & Viviana Valadez-Graham
- 2015 • **Expression profiling and down-regulation of three histone lysine methyltransferase genes PvATXR3h, PvASHH2h, and PvTRX1h in the common bean**  
Plant OMICS  
· Aaron Barraza, Francisco Luna-Martínez, **Joselyn C. Chávez-Fuentes**, Raúl Álvarez-Venegas,

## AWARDS

- 2020 • **Diversity Scholarship**  
RStudio::conf 2020  San Francisco, USA  
· Attending the workshop: What they forgot to teach you about R? By Jenny Bryan
- 2019 • **Developer scholarship**  
Bioc2019  New York City, USA  
· Presenting a contributors short talk

2019	<ul style="list-style-type: none"> <li>● <b>Developer scholarship</b> Bioc2020           <ul style="list-style-type: none"> <li>• Presenting a BoF and poster</li> </ul> </li> </ul>	📍 Virtual format
<b>TALKS AND POSTERS</b>		
2021	<ul style="list-style-type: none"> <li>● <b>An introduction to the R/Bioconductor Ecosystem<sup>13</sup></b> R-Ladies Baltimore           <ul style="list-style-type: none"> <li>• Invited talk</li> </ul> </li> </ul>	📍 Virtual format
2021	<ul style="list-style-type: none"> <li>● <b>Efforts of the CDSB community<sup>14</sup></b> ConectaR 2021           <ul style="list-style-type: none"> <li>• Contributed talk with Erick Cuevas-Fernandez, Leonardo Collado-Torres and Alejandro Reyes.</li> </ul> </li> </ul>	📍 Virtual format
2021	<ul style="list-style-type: none"> <li>● <b>Panel: Initiatives with a gender perspective in science</b> Physiology Institute, UNAM           <ul style="list-style-type: none"> <li>• Invited talk</li> </ul> </li> </ul>	📍 Virtual format
2020	<ul style="list-style-type: none"> <li>● <b>Working with lists in R<sup>15</sup></b> R-Ladies Cuernavaca           <ul style="list-style-type: none"> <li>• Meetup</li> </ul> </li> </ul>	📍 Cuernavaca, Mexico
2020	<ul style="list-style-type: none"> <li>● <b>Writing our first Bioconductor package as members of the CDSB community</b> Bioconductor Developers Forum           <ul style="list-style-type: none"> <li>• Invited participation with Carmina Barberena-Jonas and Emiliano Sotelo-Fonseca</li> </ul> </li> </ul>	📍 Virtual format
2020	<ul style="list-style-type: none"> <li>● <b>CDSB community: efforts to strengthen the R/Bioconductor developer community in Mexico/LatAm<sup>16</sup></b> BioC2020           <ul style="list-style-type: none"> <li>• Birds of a Feather session with Carmina Barberena-Jonas, Emiliano Sotelo-Fonseca, Leonardo Collado-Torres and Alejandro Reyes</li> </ul> </li> </ul>	📍 Virtual format
2020	<ul style="list-style-type: none"> <li>● <b>Poster: The study of transcriptional regulatory elements using ‘erba’ reveals a phylum-dependent compensatory effect<sup>17</sup></b> BioC2020           <ul style="list-style-type: none"> <li>• Contributed Poster. Authored with Damien P. Devos and Enrique Merino.</li> </ul> </li> </ul>	📍 Virtual format
2020	<ul style="list-style-type: none"> <li>● <b>Panel: What we talk about when it comes to accessibility?</b> Latin-R Conference           <ul style="list-style-type: none"> <li>• Invited participation</li> </ul> </li> </ul>	📍 Virtual format

2020	<ul style="list-style-type: none"> <li>● <b>Creating a new wave of software developers in Mexico and Latin America<sup>18</sup></b>  <b>Open Source Software Contributors Meeting</b>            • Contributed talk with Carmina Barberena-Jonas, Leonardo Collado-Torres and Alejandro Reyes         </li> </ul>	📍 Virtual format
2020	<ul style="list-style-type: none"> <li>● <b>Panel: Challenges and Perspectives of R-LadiesMX<sup>19</sup></b>  <b>R-LadiesMX First Annual Meeting</b></li> </ul>	📍 Virtual format
2019	<ul style="list-style-type: none"> <li>● <b>A collaborative approach to improve access to bacterial regulatory networks using R/Bioconductor<sup>20</sup></b>  <b>Bioc2019</b>            • Developer's talk presenting the regutools package.</li> </ul>	📍 New York City, USA
2019	<ul style="list-style-type: none"> <li>● <b>Introduction to R: variables and help<sup>21</sup></b>  <b>R-Ladies Cuernavaca</b>            • Meetup</li> </ul>	📍 Cuernavaca, Mexico
2016	<ul style="list-style-type: none"> <li>● <b>Poster: The role of dAtrx ATPase in telomeric maintenance of Drosophila melanogaster.</b>  <b>2nd MexFly Meeting</b></li> </ul>	📍 Mexico City, Mexico
2016	<ul style="list-style-type: none"> <li>● <b>Poster: The role of dAtrx ATPase in telomeric maintenance of Drosophila melanogaster.</b>  <b>National Biochemistry Meeting</b></li> </ul>	📍 Aguascalientes, Mexico

## 🔗 LINKS

- 1: <https://comunidadabioinfo.github.io>
- 2: <https://www.youtube.com/watch?v=rtP4zmbR3p4&list=PLwa0ZAE6DJg5h-7uTFZjgP7VZUEadZZfI>
- 3: <http://www.redmexicanadebioinformatica.org/>
- 4: [https://www.youtube.com/watch?v=rtyv49poP\\_k&list=PLwa0ZAE6DJg66mMnRH1LyR16RZTswat6n](https://www.youtube.com/watch?v=rtyv49poP_k&list=PLwa0ZAE6DJg66mMnRH1LyR16RZTswat6n)
- 5: <https://rladiesmx.netlify.app/en/>
- 6: <https://www.youtube.com/channel/UCFT7Tgi7UAzR-eyzjoxBzxA>
- 7: <https://comunidadabioinfo.github.io/post/cdsb2020-building-workflows-with-rstudio-and-scrnaseq-with-bioconductor/#.YHdbRC1h1mB>
- 8: [https://comunidadabioinfo.github.io/minicurso\\_dic2020/estructuras\\_de\\_datos\\_estructuras\\_de\\_datos.html](https://comunidadabioinfo.github.io/minicurso_dic2020/estructuras_de_datos_estructuras_de_datos.html)
- 9: <https://rladiesmx.netlify.app/en/post/2021-01-06-blog-encuentro2020-en/>
- 10: <https://user2021.r-project.org/blog/2021/02/17/preparing-for-an-accessible-conference/>
- 11: <https://bioconductor.org/packages/release/bioc/html/regutools.html>
- 12: <https://github.com/joschavezf/erba>
- 13: [https://joschavezf.github.io/slides\\_rladies\\_bmore/intro-bioconductor.html](https://joschavezf.github.io/slides_rladies_bmore/intro-bioconductor.html)
- 14: <https://speakerdeck.com/erickcf/cdsb-conectar-2021>
- 15: [https://github.com/RLadiesCuerna/presentaciones\\_meetups/blob/master/2020\\_feb/listas.pptx](https://github.com/RLadiesCuerna/presentaciones_meetups/blob/master/2020_feb/listas.pptx)

- 16: <https://speakerdeck.com/lcolladotor/cdsb-bioc2020-birds-of-a-feather>
- 17: <https://f1000research.com/posters/9-722>
- 18: <https://speakerdeck.com/josschavezf/ccoss-2020-creando-una-nueva-ola-de-desarrolladores-de-software-libre-con-la-comunidad-cdsb-mexico>
- 19: <https://www.youtube.com/watch?v=Pa1AVNRj-uk>
- 20: <https://speakerdeck.com/josschavezf/bioconductor>
- 21: [https://github.com/RLadiesCuerna/presentaciones\\_meetups/blob/master/2019\\_oct/variables.pptx](https://github.com/RLadiesCuerna/presentaciones_meetups/blob/master/2019_oct/variables.pptx)