CURRICULUM VITAE

1. Name: Erica Nicole Larschan

2. Home address:

1246 Central Ave
Needham, MA
02492

3. Education:

Undergraduate: 1998	Wellesley College, Wellesley, MA B.A. Biochemistry, Summa cum laude, GPA 4.0
Graduate:	Harvard Medical School, Boston, MA Mentor: Fred M. Winston, Ph.D
2004	Ph.D., Genetics Dissertation Title: Genetic and biochemical characterization of *S.cerevisiae* SAGA complex as a coactivator for transcriptional activation by Gal4
Postgraduate: 2004-2009	Brigham and Women's Hospital, Boston, MA Postdoctoral Fellow, Department of Medicine, Division of Genetics Mentor: Mitzi Kuroda, Ph.D

4. Professional appointments:

2010-2018	Brown University, Providence, RI Richard and Edna Salomon Assistant Professor of Biology (tenure-track) Department of Molecular Biology, Cell Biology, and Biochemistry
2018-present	Brown University, Providence, RI Associate professor of Molecular Biology, Cellular Biology and Biochemistry Department of Molecular Biology, Cellular Biology and Biochemistry

5. Completed Publications:

Refereed journal articles (33 total publications)

My research laboratory at Brown University:

Brown University graduate student authors are denoted with a † symbol.
Brown University undergraduate student authors are denoted with a ‡ symbol.
Members of my laboratory are underlined.

1) **Larschan, E**, Soruco, MM†, Lee, O-K, Peng, S, Bishop E, Chery, J†, Goebel, K, Feng, J‡, Park, PJ, and Kuroda, MI. 2012. Identification of chromatin-associated regulators of MSL complex targeting in *Drosophila* dosage compensation. *PLoS Genetics*. 8(7):e1002830.

I conceived this study and performed initial experiments as a postdoctoral fellow in the laboratory of Mitzi Kuroda. After starting my own laboratory at Brown, I advised graduate students Marcela Soruco and Jessica Chery, undergraduate student Jessica Feng, and research technician Karen Goebel (underlined authors) on additional experiments. My trainees performed extensive secondary screens on over 100 candidate genes that I had initially identified and conducted the genomic approaches that constitute the majority of the study, and I wrote the manuscript. Collaborators Eric Bishop, Shouyong Peng, and Peter Park performed computational analysis. Ok-Kyung Lee was a technician in the Kuroda laboratory who assisted with the genetic screen.

2) Soruco, MM†*, Chery, J†**, Bishop, E.P*, Siggers, T, Tolstorukov, M, Leydon, AR†, Sugden, A†, Goebel,K Feng, J‡, Xia, P‡, Vendenko, A, Bulyk, M.L., Park, P.J., and **Larschan, E.** 2013. The CLAMP protein links the MSL complex to the X chromosome during *Drosophila* dosage compensation. *Genes and Development*: 27: 1551-6.

*these authors contributed equally to this work

As the corresponding author, I conceived the study, wrote the manuscript, and advised my two graduate students Marcela Soruco and Jessica Chery, who performed the majority of experiments. Additional members of my laboratory who contributed were rotation graduate students Alexander Leydon and Arthur Sugden, Brown undergraduates Jessica Feng and Peng Xia, and research technician Karen Goebel. Collaborators Eric Bishop and Peter Park performed computational analysis. Collaborators Anastasia Vendenko, Trevor Siggers and Martha Bulyk conducted protein binding microarrays with purified proteins provided by my laboratory. Collaborator Michael Tolstorukov performed computational analysis of chromatin accessibility.

3) Rieder LE, **Larschan EN**. 2014. Wisdom from the fly. *Trends Genet.* 30(11):479-81.

I wrote this invited review on how *Drosophila* research has contributed to our understanding of human disease with my postdoctoral fellow Dr. Leila Rieder.

4) Chery J†, **Larschan E**. 2014. X-marks the spot: X-chromosome identification during dosage compensation. *Biochim Biophys Acta*. 1839(3):234-40.

I wrote this invited review on dosage compensation with my graduate student Jessica Chery.

5) Soruco MM†, **Larschan E**. 2014. A new player in X identification: the CLAMP protein is a key factor in *Drosophila* dosage compensation. *Chromosome Res*. 22(4):505-15.

I wrote this invited review on dosage compensation with my graduate student Marcela Soruco.

6) Kuzu G*, Kaye EG†*, Chery J†, Siggers T, Yang L, Dobson JR, Boor S‡, Bliss J, Liu W,Jogl G, Rohs R, Singh ND, Bulyk ML, Tolstorukov, MY, **Larschan, E**. 2016. Expansion of GA dinucleotide repeats increases the density of CLAMP binding sites on the X-Chromosome to promote *Drosophila* dosage compensation. *PLoS Genetics*. 12(7):e1006120.
* these authors contributed equally to this work

As the corresponding author, I conceived the project, wrote the manuscript, and advised the trainees conducting the research. The underlined authors were members of my group including postdoctoral fellows Guray Kuzu and Jason Dobson, graduate students Emily Kaye and Jessica Chery, Brown undergraduate Sonia Boor, and research technician Jacob Bliss. Collaborators Lin Yang and Remo Rohs conducted computational analysis of DNA sequence motif shape. Collaborators Trevor Siggers and Martha Bulyk designed protein binding microarrays. Collaborator Nadia Singh contributed evolutionary computational analysis. Collaborators Wei Liu and Gerwald Jogl assisted with protein purification. Collaborator Michael Tolstorukov advised on computational approaches.

7) Urban JA†, Doherty CA‡, Jordan WT, Bliss JE, Feng J‡, Soruco MM†, Rieder LE, **Larschan, E.** 2016. The essential Drosophila CLAMP protein differentially regulates non-coding *roX* RNAs in male and females. *Chromosome Research* Dec 19 2016. Epub ahead of print.

As the corresponding author, I designed the study, wrote the manuscript, and advised trainees. All authors including two Brown undergraduates Caroline Doherty and Jessica Feng were members of my laboratory.

8) Day DS, Zhang B, Stevens SM, Ferrari F, **Larschan EN**, Park PJ, Pu WT. 2016. Comprehensive analysis of promoter-proximal RNA polymerase II pausing across mammalian cell types. *Genome Biology*. Jun 3;17(1):120.

I advised graduate student Daniel Day, a member of collaborator Peter Park's laboratory, on this project over a two-year period. I also contributed to the writing of the manuscript.

9) Mieczkowski J, Cook A, Bowman SK, Mueller B, Alver BH, Kundu S, Deaton AM, Urban JA†, **Larschan E**, Park PJ, Kingston RE, Tolstorukov MY. 2016. MNase titration reveals differences between nucleosome occupancy and chromatin accessibility. *Nature Communications.* 6;7:11485.

Graduate student Jennifer Urban in my laboratory prepared key experimental samples and I provided experimental and editorial advice.

10) Kaye EG†*, Kurdibaeva, A*, Wolle, D, Aoki, T, Schedl, P and **Larschan, E**. 2017. *Drosophila* dosage compensation loci associate with a boundary forming insulator complex. *Molecular and Cellular Biology.* 37(21):e00253-17. * these two authors contributed equally to this work

As the corresponding author, I conceived the project, wrote the manuscript, and advised my graduate student Emily Kaye, who conducted the majority of the experiments. Amina Kurbidaeva, Daniel Wolle, and Tstomu Aoki in collaborator Paul Schedl's laboratory performed additional gel shift experiments.

11) Rieder, LE*, Koreski, KP* Boltz, KA, Kuzu, G, Urban, JA†, Bowman, SK, Zeidman, A‡, Jordan, WT3rd†, Tolstorukov, MY, Marzluff, WF, Duronio, RJ and **Larschan, E**. Histone Locus Regulation by the *Drosophila* Dosage Compensation Adaptor Protein CLAMP. 2017. *Genes and Development*. 31(14):1494-1508.
*these two authors contributed equally to this work

As the corresponding author, I conceived the project and wrote the manuscript in collaboration with my postdoctoral fellow Leila Rieder, who performed the majority of the experiments. Kaitlin

Koreski and Kara Boltz in Robert Duronio's group are collaborators who generated the histone gene array that lacks GA-repeat sequences used in Figure 1. William Marzluff, the founder of the histone locus body (HLB) field, provided additional advice. Jennifer Urban and Guray Kuzu in my laboratory and Sarah Bowman contributed a key data set allowing analysis of chromatin opening at the HLB. Graduate student William Jordan and undergraduate Anna Zeidman each contributed to data collection. Collaborator Michael Tolstorukov advised on computational approaches.

12) Urban, J†*, Kuzu, G*, Bowman, S, Scruggs, B, Henriques, T, Kingston, RE, Adelman, K, Tolstorukov, MY and **Erica Larschan**. Enhanced chromatin accessibility of the dosage compensated *Drosophila* male X-chromosome requires the CLAMP zinc finger protein. 2017. *PLoS ONE* 12(10). *these two authors contributed equally to this work

As the corresponding author, I conceived the project, wrote the manuscript, and advised the trainees conducting the research. Co-first authors Jennifer Urban and Guray Kuzu were members of my laboratory and conducted most of the experiments and computational analysis presented in this manuscript. Collaborators Sarah Bowman and Robert Kingston contributed to MNase-seq experiments. Collaborators Ben Scruggs and Karen Adelman advised on the nascent RNA-sequencing experiments. Collaborator Michael Tolstorukov advised on computational approaches to integrate chromatin and gene expression data sets.

13) Urban, JA† , Urban,J, Kuzu,G and **Larschan, E**. The *Drosophila* CLAMP protein associates with diverse sex-specific and non-sex-specific proteins on chromatin. 2017. *PLoS ONE*, **accepted.**

As the corresponding author, I conceived the project, wrote the manuscript, and advised my trainees Jennifer Urban and Guray Kuzu on conducting the research. Collaborator John Urban performed computational analysis.

14) Kaye, E*, Booker, M*, Conicella, A, Kurland, JV, Fawzi, N, Bulyk, ML, Tolstorukov, M, **Larschan, E**. 2018. Sequence variation within similar *cis*-elements promotes context-specific functions of two GA-binding *Drosophila* transcription factors. *Cell Reports,* *These two authors contributed equally to this work.

As the corresponding author, I conceived the project, wrote the manuscript, and advised my trainees Emily Kaye and Matthew Booker on conducting the research. Collaborators Alexander Conicella and Nicholas Fawzi advised Emily Kaye on protein purification. Collaborator Michael Tolstorukov advised on computational approaches. Collaborators Jesse Kurland and Martha Bulyk performed protein binding microarrays on samples generated in my laboratory.

15) Rieder, LE*, Jordan, WT 3rd†*. **Larschan, E**. 2019. Targeting of the Dosage-compensated Male X-chromosome during early Drosophila development. *Cell Reports,* Dec 24th: 29(12):4268-75. ***equal contribution**

All of the experiments and analysis were conducted in my research group and were supervised by me. This manuscript is the culmination of six years of work on the early stages of dosage compensation and describes the first system for sexing early embryos prior to the maternal to zygotic transition. Dr. Rieder is now a faculty member at Emory University.

16) Tikhonova E, Fedotova A, Bonchuk A, Mogila V, **Larschan EN**, Georgiev P, Maksimenko O. 2019 The simultaneous interaction of MSL2 with CLAMP and DNA provides redundancy in

the initiation of dosage compensation in *Drosophila* males. *Development*. August 23; 146: 179663.

I have been collaborating with the Maksimenko group in Moscow for five years and this paper is the culmination of our joint projects.

17) Duan J, **Larschan EN**. 2019. Dosage Compensation: How to Be Compensated..or Not? *Current Biology.* Dec 2nd 29: R1229.

This is a review article about dosage compensation across species which I wrote with my postdoctoral fellow Dr. Jingyue Duan.

18) Jordan W 3rd, Rieder LE, **Larschan E**. 2019. Diverse Genome Topologies Characterize Dosage Compensation across species. *Trends Genet.* Apr; 35(4): 308-315.

This is a review article about three-dimensional organization of the X-chromosome across species which I wrote with for graduate student William Jordan and former postdoc Leila Rieder who is now a faculty member at Emory.

19) Mukulika Ray and Erica Larschan. Getting started: altering promoter choice as a mechanism for cell type differentiation. Genes Dev. 2020 May 1; 34(9-10): 619–620. doi: 10.1101/gad.338723.120

This is a review article about altering promoter choice as a mechanism for cell type differentiation.

20) Duan, J*, Rieder, LE*, Huang, A‡, Jordan, WT III†, McKenney, M‡, Watters, S, Nicolas L. Fawzi, **Larschan, E**. (2021). CLAMP and Zelda function together as pioneer transcription factors to promote *Drosophila* zygotic genome activation. *eLife.* Aug 3 10:e69937. *equal contribution

This manuscript is the culmination of four years of work and describes a novel pioneer transcription factor that opens up the zygotic genome. Dr. Duan received a faculty position at **Cornell** based on this work.

21) Jordan, WT 3rd† and **Larschan, E.** (2021). The zinc finger protein CLAMP promotes long-range chromatin interactions that mediate dosage compensation of the male X-chromosome. *Epigenetics and Chromatin*. *Epigenetics & Chromatin.* Jun 29 14 (1):29.

This work describes the first mechanism by which the male X-chromosome is organized in three-dimensional space independently from other chromosomes.

22) Conard, AM†, Goodman, N‡, Hu,Y, Perrimon, N, Singh, R, Lawrence, C, **Larschan, E**. (2021).TIMEOR: a web-based tool to uncover temporal regulatory mechanisms from multi-omics data. *Nucleic Acids Research* Jul 2; 49(W1):W641-W653.

This work describes the first web-based platform to integrate time course mRNA-seq data.

23) Bigness, Jeremy†, Loinaz, Xavier, Patel, Shalin, **Larschan, E** & Singh, Ritambhara. Integrating long-range regulatory interactions to predict gene expression using graph convolutional neural networks. (2022) *Journal of Computational Biology*.

This paper resulted from a new collaboration with machine learning expert Dr. Ritambhara Singh (CS) and describes a new machine learning model for three-dimensional genome organization by our joint graduate student Jeremy Bigness.

24) Calderon, D., R. Blecher-Gonen, X. Huang, S. Secchia, *J. Kentro*, R.M. Daza, B. Martin, A. Dulja, C. Schaub,C. Trapnell, **E. Larschan**, *K.M. O'Connor-Giles*, E.E.M. Furlong, and J. Shendure. (2022). The continuum of *Drosophila* embryonic development at single-cell resolution. *Science*. Aug 5; 377(6606):eabn5800.

This is a collaborative manuscript stemming from a collaboration I initiated with Jay Shendure and Eileen Furlong. A joint graduate student James Kentro who is co-mentored by Kate O'Connor Giles performed key analysis that facilitated the publication of the first single cell time course analysis of *Drosophila* embryos.

25) Anne M. Bronikowski, Richard P. Meisel, Peggy R. Biga, James R. Walters, Judith E. Mank, **Erica Larschan,** Gerald S. Wilkinson, Nicole Valenzuela, Ashley Mae Conard, João Pedro de Magalhães, Jingyue (Ellie) Duan, Amy E. Elias, Tony Gamble, Rita M. Graze, Kristin E. Gribble, Jill A. Kreiling, Nicole C. Riddle (2022). Sex-specific aging in animals: A review and perspectives. *Aging Cell*.

This is a review article that reviews sex differences in aging.

26) Mukulika Ray†*, Ashley Mae Conard†*, Jennifer Urban†, Joseph Aguilera†, Annie Huang‡,, Pranav Mahableshwarkar‡,, Smriti Vaidyanathan‡, **Erica Larschan**. Sex-specific transcript diversity is regulated by a maternal pioneer factor in early *Drosophila* embryos. *eLife*, under final revision and on *bioxriv*.

This manuscript is in the final stage of revision at *eLife* and describes a new role for a maternal factor in promoting sex-specific splicing. It is the result of five years of work in my laboratory and was greatly delayed by the pandemic.

Preprint on bioRxiv which are all under revision at the journal listed:

Maria A. Tsiarli, Ashley M. Conard†, Lucy Xu‡, Erica Nguyen‡, **Larschan, E.** The transcription factor CLAMP is required for neurogenesis in *Drosophila melanogaster. Genetics,* under final revision and *bioxriv.*

My postdoctoral work in Dr. Mitzi Kuroda's group at Brigham and Women's Hospital:

1) Alekseyenko, AA, **Larschan, E**, Lai, WR, Park, PJ, and Kuroda, MI. 2006. High-resolution ChIP-chip analysis reveals that the *Drosophila* MSL complex selectively identifies active genes on the male X chromosome. *Genes Dev*. 20:848-57.

Faculty of 1000. Must read rating.
Highlighted in: Schubeler D. 2006. Dosage compensation in high resolution: global up-regulation through local recruitment. *Genes Dev*. 20:749-53.

2) Bai, XB*, **Larschan, E***, Kwon, SY, Badenhorst, P, and Kuroda, MI. 2007. Regional control of chromatin organization by noncoding roX RNAs and the NURF remodeling complex in *Drosophila melanogaster*. *Genetics*. 176:1491-9.
*these authors contributed equally to this work

3) Peng, S, Alekseyenko, AA, **Larschan, E**, Kuroda, MI, and Park, PJ. 2007. Normalization and experimental design for ChIP-chip data. *BMC Bioinformatics.* 8:219.

4) **Larschan, E***, Alekseyenko, AA*, Gortchakov, A, Li, B, Lai, WR, Peng, SY, Yang, P, Workman, JR, Park, PJ, and Kuroda, MI. 2007. MSL complex is attracted to genes marked by H3K36 trimethylation using a sequence-independent mechanism. *Mol. Cell* 28:121-33. *these authors contributed equally to this work

5) Alekseyenko, AA*, Peng, SY*, **Larschan, E**, Gortchakov, A, Lee, OK, Karchenko, P, McGrath, SD, Wang, CI, Mardis, ER, Park, PJ, and Kuroda, MI. 2008. A sequence motif within chromatin entry sites directs MSL establishment on the *Drosophila* X chromosome. *Cell* 134:599-609. *these authors contributed equally to this work
Highlighted in: Muers, M. 2008. Sequence guided entry for MSL. *Nat. Rev. Genetics* 9:732.

6) Gelbart, M, **Larschan, E**, Peng, S, Park, PJ, and Kuroda, MI. 2009. Broad domains of histone acetylation characterize the *Drosophila* male X chromosome. *Nat. Struc. & Mol. Biology.* 16:825-32.
Highlighted in: Weake, VM and Workman, JL. 2009. Hit and run: X marks the spot! *Nat Struc. & Mol. Biology* 16:801-3.

7) Kharchenko, PV, Alekseyenko, AA, Schwartz, YB, Minoda, A, Riddle, NC, Ernst, J, Sabo, PJ, **Larschan, E**, Gorchakov, AA, Gu, T, Linder-Basso, D, Plachetka, A, Shanower, G, Tolstorukov, MY, Luquette, LJ, Xi, R, Jung, YL, Park, R, Bishop, EP, Canfield, TP, Sandstrom, R, Thurman, RE, MacAlpine, DM, Stamatoyannopoulos, J, Kellis, M, Elgin, SCR, Kuroda, MI, Pirrotta, V, Karpen, G, and Park, PJ. 2010. Comprehensive analysis of the chromatin landscape in *Drosophila melanogaster.*
Nature, 471(7339):480-5.

8) **Larschan, E***, Bishop E*, Kharchenko, P, Park, PJ, and Kuroda, MI. 2011.
X chromosome dosage compensation via enhanced transcription elongation in *Drosophila* males. *Nature*, 471(7336):115-8. *these authors contributed equally to this work

9) Alekseyenko AA*, Ho JWK*, Peng S*, Gelbart M, Tolstorukov M, Plachetka A, Kharchenko PV, Jung YL, Gorchakov AA, **Larschan E**, Gu T, Minoda A, Riddle NC, Schwartz YB, Elgin SCR, Karpen GH, Pirrotta V, Kuroda MI**, Park PJ**. 2012. Sequence-specific targeting of dosage compensation in *Drosophila* favors an active chromatin context. *PLoS Genetics*, 2012 8(4). epub. * and**these authors contributed equally

10) Bateman, J.R.*, **Larschan, E***, Marshall, L., Dempsey, K.E., Johnson, J.E., D'Souza, R, Mellone, B.G., and Kuroda, M.I. 2012. A genome-wide screen identifies genes that affect somatic homolog pairing in *Drosophila* cell culture. in press, *G3*. *these authors contributed equally to this work

My doctoral work in Dr. Fred Winston's group at Harvard Medical School:

1) **Larschan, E** and Winston, F. 2001. The *S. cerevisiae* SAGA complex functions *in vivo* as a coactivator for transcriptional activation by Gal4. *Genes Dev*.15:1946-56.

2) **Larschan, E** and Winston, F. 2005. The *Saccharomyces cerevisiae* Srb8-Srb11 complex functions with the SAGA complex during Gal4-activated transcription. *Mol Cell Biol*. 25:114-23.

3) Prather, DM, **Larschan, E**, and Winston, F. 2005. Evidence that the elongation factor TFIIS plays a role in transcription initiation at *GAL1* in *Saccharomyces cerevisiae*. *Mol Cell Biol*. 25:2650-9.

Non-refereed journal article:

Larschan, E, Alekseyenko, AA, Lai, WR, Park, PJ, and Kuroda, MI. 2006. MSL complex associates with clusters of actively transcribed genes along the *Drosophila* male X chromosome. *Cold Spring Harb Symp Quant Biol*. 71:385-94.

Abstracts:

1) **Larschan, E.** and Winston, FM. 2000. SAGA complex functions as a coactivator for Gal4 in vivo. Cold Spring Harbor Meeting: Mechanism of Eukaryotic Transcription. Cold Spring Harbor, NY.

2) **Larschan, E** and Winston, FM. 2001. SAGA complex functions as a coactivator for Gal4 in vivo. FASEB Chromatin and Transcription. Snowmass, CO.

3) Alekseyenko, AA, **Larschan, E**, Lai, WR, Park, PJ, and Kuroda, MI. 2006. High-resolution ChIP-chip analysis reveals that the Drosophila MSL complex slectively identifies active genes on the male X chromosome. Gordon Conference: Chromatin structure and function. Ciocco, Italy.

4) **Larschan, E,** Alekseyenko, AA, Gortchakov, A, Li, B, Lai, WR, Peng, SY, Yang, P, Workman, JR, Park, PJ, and Kuroda, MI. 2007. MSL complex is attracted to genes marked by H3K36 trimethylation using a sequence-independent mechanism. FASEB: Chromatin and Transcription. Snowmass, CO.

5) Chery, J, Goebel, K and **Larschan, E**. 2011. Identifying the function of the CLAMP protein. International *Drosophila* meeting, San Diego, CA.

6) Soruco, M, Bishop, E, Goebel, K, Feng, J, Park, PJ, and **Larschan, E**. 2011. Identification of the X chromosome during dosage compensation in *Drosophila*. International *Drosophila* Meeting, San Diego, CA.

7) Chery, J, Goebel, K, and **Larschan, E**. 2011. Identifying the function of the CLAMP protein. Penn State Chromatin Symposium, State College, PA.

8) Soruco, M, Bishop, E, Goebel, K, Feng, J, Park, PJ, and **Larschan, E**. 2011. Identification of the X chromosome during dosage compensation in *Drosophila*. Penn State Chromatin Symposium, State College, PA.

9) Soruco, M, Chery, J, Bishop, E, Goebel, K, Feng, J, Xia, T, Bulyk, M, Park, PJ, and **Larschan, E**. 2011. Essential proteins regulate *Drosophila* dosage compensation. *Cell* Epigenetics conference, Boston, MA.

10) Chery, J, Soruco, M, Bishop, E, Goebel, K, Feng, J, Xia, T, Bulyk, M, Park, PJ, and **Larschan, E**. 2012. The CLAMP protein interacts with both DNA and RNA. Keystone symposium on Chromatin and Epigenetics, Keystone, CO. **This abstract was selected for a talk.**

11) Soruco, M, Chery, J, Bishop, E, Goebel, K, Feng, J, Xia, T, Bulyk, M, Park, PJ, and **Larschan, E**. 2012. Synergistic interactions between the CLAMP protein and MSL complex regulate *Drosophila* dosage compensation. Gordon Conference on Chromatin structure and function. Il Ciocco, Italy.

12) Chery, J, Soruco, M, Bishop, E, Goebel, K, Feng, J, Xia, T, Bulyk, M, Park, PJ, and **Larschan, E**. 2012. The CLAMP protein interacts with both DNA and RNA. NIH Fronteirs in Genomics summer course. Bethesda, MD

13) Soruco, M, Chery, J, Bishop, E, Goebel, K, Feng, J, Xia, T, Bulyk, M, Park, PJ, and **Larschan, E**. 2012. Synergistic interactions between the CLAMP protein and MSL complex regulate *Drosophila* dosage compensation. National SACNAS Research Conference. Seattle, WA. **This abstract was selected for a talk.**

14) Chery, J, Soruco, M, Bishop, E, Goebel, K, Feng, J, Xia, T, Bulyk, M, Park, PJ, and **Larschan, E**. 2012. The CLAMP protein interacts with both DNA and RNA. ABRCMS national meeting.

15) Chery, J, Soruco, M, Bishop, E, Goebel, K, Feng, J, Xia, T, Bulyk, M, Park, PJ, and **Larschan, E**. 2012. The CLAMP protein interacts with both DNA and RNA. New England Science Symposium, Boston, MA.

16) Soruco, M, Chery, J, Bishop, E, Goebel, K, Feng, J, Xia, T, Bulyk, M, Park, PJ, and **Larschan, E**. 2013. Synergistic interactions between the CLAMP protein and MSL complex regulate *Drosophila* dosage compensation. NIH Chromatin Symposium.

17) Soruco, M, Chery, J, Bishop, E, Goebel, K, Feng, J, Xia, T, Bulyk, M, Park, PJ, and **Larschan, E**. 2013. Synergistic interactions between the CLAMP protein and MSL complex regulate *Drosophila* dosage compensation. International *Drosophila* Meeting. Washington, Dc. **This abstract was selected for a talk.**

18) Soruco, M, Chery, J, Bishop, E, Goebel, K, Feng, J, Xia, T, Bulyk, M, Park, PJ, and **Larschan, E**. 2013. Synergistic interactions between the CLAMP protein and MSL complex regulate *Drosophila* dosage compensation. FASEB Chromatin Meeting. Nassau, Bahamas. **This abstract was selected for a talk.**

19) Chery, J, Dobson, J, Siggers, T, Bulyk, M,and **Larschan, E**. 2013. A conserved zinc finger protein targets the *Drosophila* dosage compensation complex to the X-chromosome. Cold Spring Harbor Transcription Meeting. **This abstract was selected for a talk.**

20) Dobson, J, Chery, Siggers, T Bulyk, M and **Larschan, E**. 2013. A conserved zinc finger protein targets the *Drosophila* dosage compensation complex to clusters of binding sites that are enriched on the male X-chromosome. ABCAM Chromatin and Transcription

meeting.

21) Soruco, M, Chery,J, Bishop, E, Siggers, T, Tolstorukov, M, Leydon,A, Sugden, A, Goebel, K, Feng, J, Xia, P, Bulyk, Park, PJ, and **Larschan, E.** 2014. Synergistic interactions promote chromosome-specificity during Drosophila dosage compensation. Gordon Conference on Chromatin and Epigenetics, Waltham, MA.

22) Rieder, L, Zeidman, A, **Larschan, E.** 2014**.** The function of the dosage compensation protein, CLAMP, at the histone locus body. International Drosophila Meeting, San Diego, CA**.**

23) Johnson, J, Doherty, C, and **Larschan, E**. 2014. Determining general and male-specific functions of the essential protein CLAMP in *Drosophila melanogaster.* International *Drosophila* meeting, San Diego, CA.

24) Johnson, J, Doherty, C, and **Larschan, E**. 2014. Determining general and male-specific functions of the essential protein CLAMP in *Drosophila melanogaster.* Cell Symposia on Transcription and Development.

25) Dobson, J, Chery, J, Rohs, R, Bulyk, M, **Larschan, E**. 2014. Evolution of Dosage Compensation in *Drosophila* increased the occupancy of the CLAMP protein on the X chromosome. Keysone Symposium, Santa Fe, NM.

26) Kaye, E, Kuzu, G, Kurland, J, Bulyk, ML, Tolstorukov, M and **Larschan, E**. 2015. Competition between the essential transcription factors GAF and CLAMP for GA-repeats defines their binding patterns in *Drosophila melanogaster.* Penn State Chromatin and Epigenetic regulation of Transcription symposium.

27) Rieder, L, Zeidman, A, Curry, K, Duronio, R, and **Larschan, E**. 2015.The dosage compensation protein CLAMP is involved in non sex-specific histone transcript misprocessing. 2015 Drosophila Research Conference, Chicago, IL.
***This poster won best poster out of 2000 posters at The International *Drosophila* Research Conference**

28) Rieder, L, Curry, K, Boltz, K, Bowman, S, Duronio, R, and **Larschan, E**. 2015. Dual roles for the *Drosophila* dosage compensation protein CLAMP in two diverse nuclear bodies: the male X-chromosome and the histone locus body. 2015 EMBO Meeting. Birmingham, UK.
***This abstract was selected for a talk and won best poster out of 800 posters at this international meeting**

29) Kaye, E, Kuzu, G, Kurland, J, Bulyk, ML, Tolstorukov, M and **Larschan, E**. 2015. Expansion of GA repeats promotes dosage compensation across species. Gordon Conference on Epigenetics, Waltham, MA.

30) Kaye, E, Kuzu, G, Kurbidaeva, A, Schedl, P, Tolstorukov, M and **Larschan, E.** 2016**.** Competition between two essential transcription factors regulates dosage compensation in *D. melanogaster.* Cold Spring Harbor Nuclear Organization Meeting.
***This abstract was selected for a talk.**

31) Jordan, W, Kaye, E, Kuzu, G, Tolstorukov, M, and **Larschan, E.** 2016**.** CLAMP: Sex Specific or Global Transcription Factor. Allied Genetics Meeting, Orlando, FL.

32) Tsiarli, M, Xu, L. and **Larschan, E**. 2016. The dosage compensation complex regulates brain development in *Drosophila melanogaster*. Cell Press Transcription in Development meeting, Chicago, IL.

33) Leila Rieder, Kaitlin Curry, Kara Boltz, Guray Kuzu, Michael Tolstorukov, William Marzluff, Robert Duronio and **Erica Larschan**. 2017. The Drosophila CLAMP protein regulates the formation of two different active chromatin domains. International Drosophila Meeting: San Diego, CA. ***This abstract was selected for a talk.**

34) Leila Rieder, Jennifer Urban, Emily Kaye, Kaitlin Curry, Kara Boltz, Guray Kuzu, Michael Tolstorukov, William Marzluff, Robert Duronio and **Erica Larschan**. 2017. The *Drosophila* CLAMP protein regulates the formation of two different active chromatin domains. Cold Spring Harbor Symposium: Chromosomes and chromatin.

35) Leila Rieder, Jennifer Urban, Emily Kaye, Kaitlin Curry, Kara Boltz, Guray Kuzu, Michael Tolstorukov, William Marzluff, Robert Duronio and **Erica Larschan**. 2017. The *Drosophila* CLAMP protein regulates the formation of two different active chromatin domains. Gordon Epigenetics Conference. Holderness School, NH.

36) William Jordan, III and **Erica Larschan**. 2018. Three-dimensional organization of the *Drosophila* X-chromosome is regulated by the CLAMP zinc finger protein. FASEB Chromatin meeting, Florence, Italy.

37) William Jordan, III and **Erica Larschan**. 2018. Machine learning models for understanding how the X-chromosome is distinguished from autosomes in Drosophila. Cold Spring Harbor Biological Data Science Meeting.

38) William Jordan, III and **Erica Larschan**. 2018. Three-dimensional organization of the *Drosophila* X-chromosome is regulated by the CLAMP zinc finger protein. HHMI Gilliam meeting, Chevy Chase, MD.

39) Leila Rieder, Kaitlin Koreski, Robert Duronio, William Marzluff and **Erica Larschan**. 2018. The CLAMP protein is required for the formation of the histone locus body. Cold Spring Harbor Meeting on Nuclear organization and function.

40) Leila Rieder, Kaitlin Koreski, Robert Duronio, William Marzluff and **Erica Larschan**. 2018. The CLAMP protein is required for the formation of the histone locus body. Cold Spring Harbor Meeting on Nuclear organization and function. Society for Developmental Biology Meeting. ***This abstract was selected for a talk.**

41) Leila Rieder, William Jordan, III, and **Erica Larschan**. 2019.Targeting dosage compensation to the male X-chromosome during early development. International *Drosophila* meeting. ***This abstract was selected for a talk.**

42) Jingyue Duan, Leila Rieder and **Erica Larschan**. 2019. Synergy between the CLAMP and Zelda pioneer transcription factors promotes the maternal to zygotic transition. Cold Spring Harbor Transcription meeting.

43) Mukulika Ray and **Erica Larschan**. 2020. CLAMP functions to regulate sex-specific splicing International *Drosophila* Meeting **Abstract selected for a talk**.

44) Ashley Conard, Ritambhara Singh, Charles Lawrence and **Erica Larschan**. 2020. Cold Spring Harbor Biological Data science TIMEOR: a web-based platform for predicting gene regulatory networks from time course multi-omics data. **Abstract selected for a talk**.

45) Jingyue Duan, Leila Rieder, Scott Watters, Mary McKenney, Annie Huang, Nicolas Fawzi, and **Erica Larschan.** 2020. CLAMP functions with Zelda as a novel pioneer transcription factor during zygotic genome activation in *Drosophila*. Cold Spring Harbor Epigenetics and Chromatin Meeting.

46) Jingyue Duan, Mukulika Ray, Leila Rieder and **Erica Larschan**. 2021. CLAMP drives the formation of different active chromatin domains at different genomic locations. Cold Spring Harbor Transcriptional Mechanisms. Dr. Larschan presented this work.

47) Jingyue Duan, Leila Rieder, Scott Watters, Mary McKenney, Annie Huang, Nicolas Fawzi, and **Erica Larschan.** 2021. CLAMP functions with Zelda as a novel pioneer transcription factor during zygotic genome activation in *Drosophila*. International Drosophila meeting. **Abstract selected for a talk**.

48) Mukulika Ray, Ashley Conard and **Erica Larschan**. 2021. A maternal factor regulates sex-specific splicing in *Drosophila*. Cold Spring Harbor Transcriptional Mechanisms. Dr. Ray presented this work.

49) Joseph Aguilera and **Erica Larschan**. 2022. The CLAMP zinc finger protein prevents aberrant mislocalization of the dosage compensation complex. International *Drosophila* meeting.

50) Mukulika Ray, Ashley Conard and **Erica Larschan**. 2022. A maternal factor regulates sex-specific splicing in *Drosophila*. International *Drosophila* meeting. Abstract selected for talk.

Invited Lectures:

2009 Brown University, Department of Molecular Biology, Cell Biology, and Biochemistry

2009 Memorial Sloan Kettering Cancer Center, Program in Molecular Biology

2009 University of Rochester, Department of Biology

2009 Wesleyan University, Department of Molecular Biology and Biochemistry

2009 Bowdoin College, Department of Biology (Host: Dr. Jack Bateman)

2010 Gordon Conference on Chromatin and Transcription, Bryant College, RI

2010 New York University, Department of Biology (Host: Dr. Christine Rushlow)

2010 North East Society for Developmental Biology, Woods Hole, MA

2011 Harvard Medical School, Department of Genetics (Host: Dr. Fred Winston)

2011 UConn, Department of Biology (Host: Dr. Barbara Mellone)

2011 Penn State Chromatin Symposium

2011 FASEB Meeting on Chromatin and Transcription

2012 Center for Computational and Molecular Biology, Brown University

2012 Wellesley College, Department of Biochemistry (Host: Dr. Don Elmore)

2013 International *Drosophila* Meeting, Washington DC

2013 Gordon Conference on Epigenetics, Bryant College, RI

2013 Brandeis University, Waltham, MA

2013 Universite Laval, Quebec, CA (Host: Dr. Amine Nourani)

2013 Keynote speaker for American Cancer Society 100th anniversary celebration

2013 Speaker at Epigenomics Conference, Harvard Medical School, Boston, MA

2013 UMass Medical School, Worcester, MA (Host: Dr. Tony Imbalzano)

2014 Plenary speaker at the International *Drosophila* meeting in San Diego, CA (audience of 3,000 participants)

2014 NIH (Host: Dr. Elissa Lei)

2014 Brandeis University, Waltham, MA (Host: Dr. Michael Marr)

2015 UNC Chapel Hill, Chapel Hill, NC (Host: Dr. Robert Duronio)

2015 Abcam chromatin meeting, Harvard Medical School

2015 UMass Amherst, MA (Host: Dr. Michele Markstein)

2016 Duke University, Raleigh, NC (Host: Dr. Don Fox)

2016 University of Rochester, Rochester, NY (Host: Dr. Amanda Larracuente)

2016 International Crete *Drosophila* meeting, Chania, Crete

2016 Cold Spring Harbor Chromatin and Epigenetics Meeting

2016 Cornell University, Ithaca, NY (Host: Dr. John Lis)

2017 University of Wisconsin, Madison (Host: Dr. Melissa Harrison)

2017 ASBMB conference (spotlight talk) Chicago, IL

2017 Johns Hopkins (Host: Dr. Robert Johnston)

2020 Ludwig-Maximillian Univeristy Munich, Germany (cancelled due to Covid)

2020 Institute for Molecular Biology, Vienna, Austria

2020 MRC London, UK (cancelled due to Covid)

2020 University of Birmingham, UK (cancelled due to Covid)

2022 Cold Spring Harbor Systems Biology: Gene Expression

2022 FASEB Nuclear Bodies meeting, Nova Scotia, Canada

6. Research grants:
Current grants:

1)NIH/NIGMS R35 MIRA Effort months: 4.5 months
5/1/2018-4/30/2023
"Establishing domains of coordinate gene activation"
$1,764,845 direct costs
Role: PI

A competitive supplement for AI readiness was awarded in 2021 (1 year, $87,000)

2)NIH/NINDS R21 Effort months: 0.6 months
9/1/2021-8/30/2023
"Identification and characterization of chromatin regulators of coordinated synaptic gene expression"
$300,000 direct costs
Role: co-PI with Dr. Kate O'Connor Giles

2)NSF BII Effort months: 1 month
09/2022-08/2027
"BII: Integration Institutite, Sex, Aging and Genomics and Epigenetics (IISAGE)"

Role: co-PI $700,000 direct costs (Larschan lab)

3)NIH T32 Effort months: 0.3 months
08/2020-06/2025
"Interdisciplinary and inclusive predoctoral training in molecular, cellular and biochemical sciences"

Role: co-PI with Kim Mowry and Mark Johnson $1,832,800 direct costs

4) Brown Seed Grant $100,000 direct costs
2/1/2023-1/31/2024
Novel mechanisms for targeting Gliobastoma Multiforme
Role: co-PI with Nikos Tapinos

Pending grants:

1)NIH R35 MIRA Renewal submitted
9/1/2022-8/30/2027
"Establishing domains of coordinate gene activation"

Role: PI

2)**NIH R01 (NIGMS)**
6/1/2023-5/31/2028
"Mechanisms by which Pioneer Transcription factors and long non-coding RNAs coordinately regulate genes"

3)NIH R01 (NIDA)
6/1/2023-5/31/2028
"Mechanisms that drive multi-drug addiction"
Co-PIs: Kaun, O'Connor Giles

4)NIH RM1
"Mechanisms by which the architecture of Gene Regulatory Networks change over time"
1/1/2024-12/31/2029
Lead PI
Co-PIs O'Connor Giles, Kaun, Fleischmann, Singh, Crombach

5) Elsa Pardee Foundation
6/1/2023-5/31/2024
Novel mechanisms for targeting Gliobastoma Multiforme
Role: co-PI with Nikos Tapinos

Past grants:

1) **NIH R01 GM098461-1** Effort: 4.5 months/37.5%
(PECASE award: proposal obtained top new investigator award score at 6th percentile)
"Establishing coordinate gene regulation during Drosophila dosage compensation"
8/1/2011-7/31/2018 $945,000 direct costs
Role: PI

A competing supplement was awarded for this R01 in 2014 ($80,000/year)

2) **ACS Research Scholar Grant** Effort: 1.9 months/18%
"Epigenetic targeting of histone acetylation"
1/1/2013-12/31/2016 $600,000 direct costs
Role: PI

3) **Pew Biomedical Scholars program** Effort: 0.84 months/7%
"Establishing domains of coordinate gene regulation"
7/1/2011-6/30/2015 $220,812 direct costs
Role: PI

4) **ADVANCE Grant from NSF through Brown University** Effort: 0 months/0%

"Using Next Generation sequencing to study dosage compensation in *Drosophila"*
4/01/2010-3/31/2011 $15,000
Role: PI

5) **RI-INBRE pilot award** Effort: 0.12 months/1.5%
"Establishing sub-nuclear domains of coordinate gene regulation"
12/1/2010-4/30/2011 $30,000
Role: PI

6) **Brown Salomon Award** Effort: 0 months/0%
"Establishing sub-nuclear domains of coordinate gene regulation"
2/28/2011-2/27/2012 $15,000
Role: PI

7) **Rhode Island Foundation Research Grant** Effort: 0.3 Months/2.5%
"Establishing domains of coordinate gene regulation"
6/01/2011-5/31/2012 $15,000
Role: PI

8) **Carney Innovation Award**
01/2021-12/31/2022
"Coordinated regulation of synaptic gene expression"
Role: co-PI with Kate O'Connor Giles $100,000 direct costs

7. Service

Service to the University

2010-present Member of NextGen Sequencer Steering Committee led by Dean Hawrot and Dr. Gary Wessel

2010 Organizer of day-long NextGen sequencer symposium

2010-2016 Presenter of Career Center seminar "How to find a post-doc"

2010 MCB Graduate Program Faculty Representative at ABRCMS student recruiting meeting

2011 Co-organizer of MCB Graduate Program Annual Retreat

2011 Presenter of Summer UTRA Program Faculty Lunch Seminar

2011 Presenter of "How to negotiate a job offer" seminar through the Brown Bio-Med Division Office of Graduate and Postdoctoral Studies

2011-present Junior Faculty representative to the MCB graduate program executive committee

2012 Presentation and tour for the staff of U.S. Senator Whitehouse from RI

2013-2015 Member of MCB Department Space Allocation Committee

2014-present Larschan laboratory initiated the Brown *Drosophila* Fly Club meeting that brings together 7 *Drosophila* labs at Brown and across Rhode Island monthly

2018-present Larschan laboratory initiated monthly Epigenetics Club

2018 Member of MCB admissions committee

2018-2019 Co-director of CCMB graduate program

2018 Member of CCMB graduate program admissions committee

2020-23 Director of CCMB graduate program

2020-2023 Mentor training for MCB department members

2022 Founded new First Generation Mentoring program (FURI) with HHMI/Biomed support

2022 Chair of interdisciplinary CCMB Faculty Search committee

Hosting Seminar Speakers at Brown:

2011 Dr. Fred Winston (Harvard), Dr. Jack Bateman (Bowdoin), Dr. Barbara Mellone (UConn) for MCB Graduate Program

2012 Dr. Barbara Meyer (Berkeley), Dr. Susan Mango (Harvard) for MCB Graduate Program co-sponsored by the NSF ADVANCE Distinguished Women in Science Program

2013 Dr. John Lis (Cornell) for MCB Graduate Program; Dr. Remo Rohs (USC) for CCMB

2014 Dr. Nadia Singh (NC State), Dr. Robert Duronio (UNC) for MCB Graduate Program

2015 Dr. Jonathan Whetstine (Harvard) for MCB Graduate Program

2016 Dr. Donald Fox (Duke) for MCB Graduate Program

2017 Dr. Robert Johnston (Johns Hopkins) for MCB Graduate Program; Dr. Amanda Larracuente (U Rochester) for CCMB; Dr. Michael Tolstorukov (MGH) for CCMB

2018 Dr.Julius Brennecke (IMBA Vienna)

2019 Dr. Wendy Bickmore (Edinborough, Scotland)

2019 Dr. Kami Ahmad (Fred Hutchinson Cancer Research Center)

2018-present Established Epigenomics Club joint group meeting with five labs

Service to the Profession

2010-present Ad-hoc review of manuscripts for *Genetics, PLoS Genetics, Molecular and Cellular Biology, Chromosome Research*, *BMC Biology, Molecular Cell, Elife*

2010 Session Chair at the North East Society for Developmental Biology meeting

2011 Ad hoc review of grants for the NSF

2012 Ad hoc member of the NIH Molecular Genetics A Study Section

2014-2016 Ad hoc member of the American Cancer Society Grant Review Panel: DNA Mechanisms in Cancer

2015-2018 Guest Editor for *PLoS Genetics* (selected reviewers for and made acceptance decisions on manuscripts).

2016-2017 Member of first mentor training cohort for the Gilliam program for under-represented minority students at Howard Hughes Medical Institute involving monthly webinars and two multi-day training sessions at HHMI headquarters

2018 Member of Blue Sky meeting advisory committee for the Genetics Society of America

2019 Chair of International *Drosophila* Meeting Gene Expression Sessions

2019 Larry Sandler Thesis Prize Selection Committee for International Genetics Society of America Meeting

2020-2022 Reviewing HHMI Gilliam award graduate student fellowships

2020 Serving on NIH Study section MG B

2021 Serving in MRAA NIH study section

2022 Serving on MRAA ZRG NIH study section

2022 Serving on F31 GGG study section

Service to the Community

2005 Roxbury Latin High School Genomics Seminar

2005, 2007, 2011,2013, 2015, 2017 Presenter of science career seminars at Wellesley College

2011 Initiator of Harvard Personalized Genome Project Education Initiative link to RI high schools

2012, 2019 Presenter at Wellesley High School Science Fair

2013-2019 Presenter at Wellesley College Pre-school and Newman Elementary school, Needham, MA

8. Honors

Academic

1994 Wellesley College Town Scholar: four-year full tuition scholarship

1995 NIH Research Experience for Undergraduates fellowship

1996 Staley Fellowship for cancer research

1997 American Cancer Society Undergraduate research fellowship

1998 National Barry M. Goldwater Scholarship in Science

1998 Mary F.C. Gross Prize for Academic Achievement

1998 Horton-Hallowell Fellowship for graduate study

1998 Wellesley College Valedictorian (summa cum laude)

2002 Albert J. Ryan Scholar at Harvard Medical School

2011 Pew Biomedical Scholar

2011 Ellison Foundation New Scholar in Aging (declined)

2012 Presidential Early Career Award in Science and Technology (PECASE) from President Obama

2013 Mentor-of-the-year Award from the Molecular and Cellular Biology Graduate Program

2014 Endowed Assistant Professor: Richard and Edna Salomon Professorship

2018 Early Career Research Award from Brown University

Fellowships

2004 NIH F32 Postdoctoral Fellowship (declined)

2004 American Cancer Society Postdoctoral Fellowship (declined)

2004 Leukemia and Lymphoma Postdoctoral Fellow

2008 Medical Foundation Charles A. King Trust Postdoctoral Fellow

Honorary Societies

1997 Phi Beta Kappa, Wellesley College, Wellesley, MA

1998 Sigma Xi Science Honor Society, Wellesley College, Wellesley, MA

9. Teaching:

BIOL2200D (Fall 2011): Current Topics in Biochemistry: Transcription and chromatin

6 students enrolled: 2 undergraduates and 4 graduate students Co-taught with Dr. Gerwald Jogl

Received a teaching evaluation score of **1.0** *(on a scale of 1.0-5.0 where 1.0 is the best)*

BIOL1950/1960: Independent Study (honors thesis in bold)

Fall 2010: Aneesha Tewari

Spring 2011: Jessica Feng, Aneesha Tewari, Peng Xia

Fall 2011: Jessica Feng, Mei Cao, Aneesha Tewari, Peng Xia

Spring 2012: **Senior Honors theses**: Jessica Feng, Mei Cao, Aneesha Tewari, Catherine McManus

Fall 2012: Catherine McManus, Peng Xia

Spring 2013: Sonia Boor, Catherine McManus

Fall 2013: Sonia Boor, Anna Zeidman

Spring 2014: Sonia Boor, Anna Zeidman, Caroline Doherty

Fall 2014: Sonia Boor, Anna Zeidman, Caroline Doherty

Spring 2015: **Senior Honors theses**: Sonia Boor, Anna Zeidman, Caroline Doherty

Fall 2015: Lucy Xu

Spring 2016: **Senior Honors Thesis**: Lucy Xu

Fall 2017: Erica Nguyen, Julia Gross

Spring 2018: Erica Nguyen, Julia Gross

Fall 2018: Erica Nguyen, Rachel Lee

Spring 2019: Renee Seto, **Erica Nguyen** (honors thesis and prize), Rachel Lee

Fall 2019: Annie Huang, Mary McKenney, Renee Seto, Rachel Lee

Spring 2020: Annie Huang, Mary McKenney, Rachel Lee, Hana Takei

Fall 2020: Annie Huang, Mary McKenney, Rachel Lee, Hana Takei, Isaac Nathoo

Spring 2021: Annie Huang, **Mary McKenney, Rachel Lee**, Hana Takei, **Isaac Nathoo**

Fall 2021: Annie Huang, Hana Takei, Samra Beyene

Spring 2022: **Annie Huang, Hana Takei, Samra Beyene**

Fall 2022: Justin Currie, Pranav Malbeshkar, Melissa Aldana, Claire Gray, Angelica Aragon Vasquez, Jasmine Shum

BIOL2150 (Fall 2012): Scientific Communication

8 students enrolled: 8 graduate students Co-taught with Dr. Judith Bender

Received a teaching evaluation score of **1.5** *(on a scale of 1.0-5.0 where 1.0 is the best)*

BIOL1540/2540 (Spring 2013): Molecular Genetics

18 students enrolled: 14 undergraduates, 4 graduate students. Co-taught with Dr. Judith Bender and Dr. Eric Morrow

Received a teaching evaluation score of **1.6** *(on a scale of 1.0-5.0 where 1.0 is the best)*

BIOL2150 (Fall 2013): Scientific Communication

9 students enrolled: 9 graduate students. Co-taught with Dr. Kim Mowry and Dr. Richard Freiman

Received a teaching evaluation score of **1.5** *(on a scale of 1.0-5.0 where 1.0 is the best)*

BIOL1540/2540 (Spring 2014): Molecular Genetics

34 students enrolled: 30 undergraduates and 4 graduate students. Co-taught with Dr. Eric Morrow

Received a teaching evaluation score of **1.5** *(on a scale of 1.0-5.0 where 1.0 is the best)*

BIOL1540/2540 (Spring 2015): Molecular Genetics

17 students enrolled: 9 undergraduates and 8 graduate students. Co-taught with Dr. Eric Morrow

Received a teaching evaluation score of **1.33** *(on a scale of 1.0-5.0 where 1.0 is the best)*

BIOL2000F (Spring 2015): Current Topics in Biochemistry: From Kinases to Chromatin

7 students enrolled: 5 undergraduates and 2 graduate students. Co-taught with Dr. Art Salomon

Received a teaching evaluation score of **1.25** *(on a scale of 1.0-5.0 where 1.0 is the best)*

BIOL2150 (Fall 2015): Scientific Communication

9 students enrolled: 9 graduate students. Co-taught with Dr. Judith Bender

Received a teaching evauation score of **1.83** *(on a scale of 1.0-5.0 where 1.0 is the best)*

BIOL1540/2540 (Spring 2016): Molecular Genetics

19 students enrolled: 13 undergraduates and 6 graduate students. Co-taught with Dr. Eric Morrow

Received a teaching evaluation score of **1.15** *(on a scale of 1.0-5.0 where 1.0 is the best)*

BIOL2200D (Fall 2016): Functional Genomics

11 students enrolled: 7 graduate students and 4 undergraduate students. Co-taught with Dr. Nicola Neretti

Received a teaching evaluation score of **1.00** *(on a scale of 1.0-5.0 where 1.0 is the best)*

BIOL1540/2540 (Spring 2017): Molecular Genetics

15 students enrolled: **11** undergraduates and **4** graduate students. Co-taught with Dr. Judith Bender

Received a teaching evaluation score of **1.86**. *(on a scale of 1.0-5.0 where 1.0 is the best*)

BIOL2150 (Fall 2017): Scientific Communication

12 students enrolled: **12** graduate students. Co-taught with Dr. Judith Bender and Dr. Kimberley Mowry

Received a teaching evaluation score of **1.0** *(on a scale of 1.0-5.0 where 1.0 is the best*)

BIOL1540/2540 (Spring 2018): Molecular Genetics

16 students enrolled: **14** undergraduates and **2** graduate students. Co-taught with Dr. Judith Bender

Received a teaching evaluation score of **1.38** *(on a scale of 1.0-5.0 where 1.0 is the best*)

BIOL2150 (Fall 2018): Scientific Communication

5 students enrolled: **5** graduate students. Co-taught with Dr. Judith Bender and Dr. Kimberley Mowry

Received a teaching evaluation score of **1.0** *(on a scale of 1.0-5.0 where 1.0 is the best*)

BIOL1540/2540 (Spring 2019): Molecular Genetics

10 students enrolled: **8** undergraduates and **2** graduate students. Co-taught with Dr. Judith Bender

Received a teaching evaluation score of **1.17** *(on a scale of 1.0-5.0 where 1.0 is the best*)

BIOL0047 (Fall 2019): Genetics

152 undergraduate students. Co-taught with Dr. Mark Johnson

Received a teaching evaluation score of **3.89** *(**on a scale of 1.0-5.0 where 5.0 is the best***)

Sabbatical Spring 2020

BIOL0047 (Fall 2020): Genetics

185 undergraduate students. Co-taught with Dr. Mark Johnson and Dr. Rob Reenan

Received a teaching evaluation score of **4.31** *(**on a scale of 1.0-5.0 where 5.0 is the best***)

BIOL1540/2540 (Spring 2021): Molecular Genetics

26 students enrolled: **23** undergraduates and **3** graduate students. Co-taught with Dr. Alvin Huang

Received a teaching evaluation score of **5.0** *(on a scale of 1.0-5.0 where 5.0 is the best)*

BIOL2150 (Fall 2021): Scientific Communication

16 students enrolled: **16** graduate students. Co-taught with Dr. Judith Bender and Dr. Kimberley Mowry

Received a teaching evaluation score of **4.80** *(on a scale of 1.0-5.0 where 5.0 is the best*)

BIOL0047 (Fall 2021): Genetics

195 undergraduate students. Co-taught with Dr. Mark Johnson and Dr. Rob Reenan

Received a mean teaching evaluation score of **4.18** *(on a scale of 1.0-5.0 where 5.0 is the best*)

BIOL0047 (Fall 2022): Genetics

158 undergraduate students. Co-taught with Dr. Mark Johnson and Dr. Rob Reenan

Received a mean teaching evaluation score of **4.23** *(on a scale of 1.0-5.0 where 5.0 is the best*)

Guest Lectures

March 11, 2010	BIOL1540/2540 Molecular Genetics
March 14, 2012	BIOL 2310 Advanced Developmental Biology
March 10, 2013	BIOL 2310 Advanced Developmental Biology
November 2014	BIOL 1300 Biomolecular Interactions
October 2015	BIOL 1300 Biomolecular Interactions
November 2016	BIOL 1300 Biomolecular Interactions

10. Advisees:

Postdoctoral Fellows

Dr. Leila Rieder (2013-2019) Assistant Professor at Emory

Dr. Maria Tsiarli (2014-2019) Postdoctoral fellow at University of Cyprus

Dr. Jason Dobson (2013) Novartis Data Science

Dr. Guray Kuzu (2014-2016) Novartis Genome Sciences Institute

Dr. Matthew Booker (2017-2019) Dana Farber Data Scientist

Dr. Mukulika Ray (2018-present) Applied for K99/R00

Dr. Jingyue Duan (2019-2021) Assistant Professor at Cornell

Graduate Students

Jessica Chery (2010-2014)

Marcela Soruco (2010-2014)
Marcela Soruco won the Brown Joukowski Thesis Prize for Best Thesis in Biology

Jennifer Urban (2012-2016)

Emily Kaye (2013-2017)

William Jordan (2015-2019)
William Jordan won the *Brown Joukowski Thesis Prize for Best Thesis in Biology*

Ashley Conard (2018-present)

Jeremy Bigness (2019-present)

James Kentro (2020-present)

Joseph Aguilera (2021-present)

Dominique Pablito (2021-present)

<u>Additional Rotation students</u>

Feb-Apr 2010: Arthur Sugden

Feb-Apr 2011: Alexander Leydon

Feb-April 2012: Tara Fresques

Feb-April 2012: Max Leiserson (CCMB)

November-January 2015: Anastasia Vedenko

October 2016-January 2017: Ethan Fitzgerald

Fall 2017: Brendan McCarthy-Sinclair

Fall 2018: Leslie Pedraza (withdrew for medical reasons)

Fall 2019: Audrey Dalgarno

Spring 2020: James Kentro

Fall 2020: Dominique Pablito, Yanitza Rodriquez

Fall 2022: Anna Nixon, Anthony Agudelo

Research Technicians

Karen Goebel (2010-2012)

Jessica Feng (2012-2014)

Jacob Bliss (2014-2021)

Undergraduates (2010-present)

Aneesha Tewari, Jessica Feng, Tina Xia, Mei Cao, Catherine MacManus, Anna Zeidman, Sonia Boor, Caroline Doherty, Alexander Hadik, Lucy Xu, Emma Thygesen, Erica Nguyen, Rhaadika Kher, Julia Gross, Rachel Lee, Annie Huang, Renee Seto, Mary McKenney, Isaac Nathoo, Samra Beyene, Justin Currie, Pranav Malbeshkar, Melissa Aldana, Claire Gray, Angelica Aragon Vasquez, Jasmine Shum

Thesis committees (2010- present)

Leila Reider, Georges St. Laurent, Stephen (Zak) Swartz, Stephen Jones, Alexander Leydon, Christopher Neil, John Urban, Abbie Frederick, Jenna Kotak, Brian Jones, Trent Woodham, Megan Gura, Sarah Cabral, Corinne Hufflitz, Alice Pieplow, Shane Evans, Gerardo Reyes Chavez, Jeremy Horrell, Gordo King

Outside reader for Ph.D theses: Dr. Jeannie Lee's laboratory (MGH), Dr. Jeannie Lawrence's laboratory (UMass Worcester), Dr. Tom Fazio's laboratory (UMass Worcester)

First year advisees (2011)

William Conway, Sonia Boor, Madeleine Borges, Michael Franklin

Concentration advisees

Victoria Tran, Shivam Nadimpalli, Ian Sabula, Savannah Lewis, Randy Chou

Advisee Funding

Jessica Chery: Travel fellowship to Keystone chromatin meeting, [travel fellowship to?] NHGRI Advances in Genomics week long-seminar course at NIH, represented the MCB Graduate Program at the ABRCMS meeting for minority students

Marcela Soruco: NIH F31-Diversity Individual Fellowship, travel fellowship as invited speaker to SACNAS National Conference, represented the MCB Graduate Program at SACNAS three times, MCB T32 training grant appointee

Jennifer Johnson: NIH F31-Diversity Individual Fellowship, IMSD training grant appointee

Emily Kaye: Molecular Biology of Aging T32 training grant appointee

Dr. Leila Rieder: Postdoctoral NIH F32 Individual Fellowship funded at 3rd percentile. Travel award to the EMBL meeting in Birmingham, UK. Travel and funding for CSHL proteomics course.

K99/R00 Transition to Independence award with a perfect score of "10"

Dr. Rieder is now a faculty member at Emory who has a very successful laboratory with two postdocs, one graduate student and three undergraduates and a lab manager.

Anna Zeidman (undergraduate): National Victoria Finnerty travel award to attend the International Drosophila meeting in Chicago, IL (2015)

William Jordan: National Science Foundation Graduate Fellowship, HHMI Gilliam Fellowship, Funding for CSHL Chromatin and Transcription course, MCB T32 training grant appointee

UTRA funding (21 total students funded)

Summer 2010: Aneesha Tewari

Summer 2011: Aneesha Tewari (individual)Team: Mei Cao, Catherine MacManus, Jessica Feng, Tina Xia

Summer 2012: Tina Xia

Summer 2013: Alexander Hadik and Sonia Boor

Summer 2014: Sonia Boor, Anna Zeidman, Caroline Doherty

Summer 2016: Emma Thygesen

Summer 2017: Erica Nuygen, Julia Gross

Summer 2019: Rachel Lee, Savannah Lewis (HUG)

Summer 2020: Isaac Nathoo, Hana Takei

Summer 2021: Hana Takei, Annie Huang, Samra Beyene (HUG)

Summer 2022: Melissa Aldana (HUG), Angelica Aragon Vasquez (HUG), Jasmine Shum, Pranav Malbekshar

10. Date: February 28, 2023