

CURRICULUM VITAE

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Research Associate at the Center for Genomic Sciences, Universidad Nacional Autónoma de México.

PROFESSIONAL PREPARATION

Universidad Nacional Autónoma de México	Biology	B.S.	2000-2004
Universidad Nacional Autónoma de México	Biochemistry	M.S.	2005-2007
Universidad Nacional Autónoma de México	Microbial evolution	Ph.D.	2007-2012
James Madison University	Microbial Ecology	Postdoc.	2012-2016
Universidad Nacional Autónoma de México	Microbial Ecology	Postdoc.	2017-april2018

PUBLICATIONS IN CHRONOLOGICAL ORDER

1. **Rebollar E**, Valadez-Graham V, Vazquez M, Reynaud E, Zurita M. 2006. Role **Articles** of the p53 homologue from *Drosophila melanogaster* in the maintenance of histone H3 acetylation and response to UV-light irradiation. *FEBS Letters*. 23;580(2):642-8.
2. Guerrero G, Delgado-Olguin P, Escamilla-Del-Arenal M, Furlan-Magaril M, **Rebollar E**, De La Rosa-Velazquez IA, Soto-Reyes E, Rincon-Arano H, Valdes-Quezada C, Valadez-Graham V, Recillas-Targa F. 2007. Globin genes transcriptional switching, chromatin structure and linked lessons to epigenetics in cancer: A comparative overview. *Comp Biochem Physiol A Mol Integr Physiol*. 147(3):750-60.
3. Furlan-Magaril M, **Rebollar E**, Guerrero G, Fernández A, Moltó E, González-Buendía E, Cantero M, Montoliu L, Recillas-Targa F. 2010. An insulator embedded in the chicken alpha-globin locus regulates chromatin domain configuration and differential gene expression. *Nucleic Acids Res*. 239(1):89-103.
4. **Rebollar EA**, Avitia M, Eguiarte L.E, González-González A, Mora L, Bonilla-Rosso G and Souza V, 2012. Water-sediment niche differentiation in ancient marine lineages of *Exiguobacterium* endemic to the Cuatro Ciénegas Basin. doi: 10.1111/j.1462-2920.2012.02784.x.
5. **Rebollar EA**, Hughey M, Harris RN, Domangue RJ, Medina D, Ibañez R, Belden LK. 2014. The lethal fungus *Batrachochytrium dendrobatidis* is present and spreading in lowland tropical forest of eastern Panamá. *PLoS One*. Apr 16;9(4):e95484. doi: 10.1371/journal.pone.0095484. eCollection 2014.
6. Avitia M, Escalante AE, **Rebollar EA**, Moreno-Letelier A, Eguiarte LE, Souza V. 2014. Population expansions shared among coexisting bacterial lineages are revealed by genetic evidence. *PeerJ*. 2:e696. doi: 10.7717/peerj.696. eCollection 2014.
7. Ellison AR, Tunstall T, DiRenzo GV, Hughey MC, **Rebollar EA**, Belden LK, Harris RN, Ibañez R, Lips KR, Zamudio KR. 2014. More than skin deep: functional genomic basis for resistance to amphibian chytridiomycosis. *Genome Biol Evol*. pii: evu285.
8. Bletz MC, **Rebollar EA**, Harris RN. 2015. Differential efficiency among DNA extraction methods

influences detection of the amphibian pathogen, *Batrachochytrium dendrobatidis*. *Dis Aquat Organ*. 2015 Feb 10;113(1):1-8. doi: 10.3354/dao02822.

9. Belden LK, Hughey MC, **Rebollar EA**, Umile TP, Loftus SC, Burzynski EA, Minbiole KPC, House LL, Jensen RV, Becker MH, Walke JB, Medina D, Ibáñez R, Harris RN. 2015. Panamanian frog species host unique skin bacterial communities. *Frontiers in Microbiology*, 6:1171.

10. **Rebollar EA**, Hughey MC, Medina D, Harris RN, Ibáñez R, Belden LK. 2016. Amphibian susceptibility and presence of *Batrachochytrium dendrobatidis* may affect skin bacteria of panamanian frogs. *ISME Journal*, doi:10.1038/ismej.2015.234.

11. **Rebollar EA**, Antwis RE, Belden LK, Becker MH, Bletz MC, Brucker R, Harrison X, Hughey MC, Kueneman J, Loudon AH, Mckenzie V, Medina D, Minbiole KPC, Rollins-Smith L, Walke JB, Weiss S, Woodhams DC, Harris RN. 2016. Using “omics” and integrated multi-omics approaches as guides to probiotic selection to mitigate chytridiomycosis. *Frontiers in Microbiology*, 7(68).

12. **Rebollar EA**, Simonetti SJ, Shoemaker WR, Harris RN. 2016. Direct and Indirect Horizontal Transmission of the Antifungal Probiotic Bacterium *Janthinobacterium lividum* on Green Frog (*Lithobates clamitans*) Tadpoles. *Applied and environmental microbiology* 82(8), 2457-2466.

13. **Rebollar EA**, Woodhams DC, LaBumbard B, Kielgast J, Harris RN. 2017. Estimating prevalence and pathogen load of the lethal fungus *Batrachochytrium dendrobatidis* is impacted by copy number variation of the ITS DNA region. *Diseases of Aquatic Organisms*, 123, 213-226.

14. Gutiérrez-Preciado A, Vargas-Chávez C, Reyes-Prieto M, Ordoñez OF, Santos-García D, Rosas-Pérez T, Valdivia-Anistro J, **Rebollar EA**, Saralegui A, Moya A, Merino E, Farías ME, Latorre A, Souza V. 2017. The genomic sequence of *Exiguobacterium chiriquucha* str. N139 reveals a species that thrives in cold waters and extreme environmental conditions. *PeerJ* 5:e3162 <https://doi.org/10.7717/peerj.3162>.

15. **Rebollar EA**, Sandoval-Castellanos E, Roessler K, Gaut BS, Alcaraz LD, Benítez M, Escalante AE. 2017. Seasonal changes in a maize-based polyculture of central Mexico reshape the co-occurrence networks of soil bacterial communities. *Frontiers in Microbiology*. 18;8:2478. doi: 10.3389/fmicb.2017.02478. eCollection 2017.

16. Familiar López M, **Rebollar EA**, Harris RN, Vredenburg VT, Hero JM. 2017. Temporal variation of the skin bacterial community and *Batrachochytrium dendrobatidis* infection in the terrestrial cryptic frog *Phyllorhina loveridgei*. *Frontiers in Microbiology*. 22;8:2535. doi: 10.3389/fmicb.2017.02535. eCollection 2017.

17. **Rebollar EA**, Gutiérrez-Preciado A, Noecker C, Eng A, Hughey MC, Medina D, Walke JB, Borenstein E, Jensen RV, Belden LK, Harris RN. 2018. The Skin Microbiome of the Neotropical Frog *Craugastor fitzingeri*: Inferring Potential Bacterial-Host-Pathogen Interactions From Metagenomic Data. *Frontiers in Microbiology*. 20;9:466.

18. Hernández-Rodríguez D, Vásquez-Aguilar AA, Serio-Silva JC, **Rebollar EA**, Azaola-Espinosa A. 2018. Molecular detection of *Bifidobacterium spp.* in faeces of black howler monkeys

(*Alouatta pigra*). Journal of Medical Primatology. doi:10.1111/jmp.12395.

19. Basanta MD, **Rebollar EA**, Parra-Olea G. PLoS One. 2019. Potential risk of Batrachochytrium salamandrivorans in Mexico. 4(2):e0211960. doi: 10.1371/journal.pone.0211960.

20. Kueneman JG, Bletz MC, McKenzie VJ, Becker CG, Joseph MB, Abarca JG, Archer H, Arellano AL, Bataille A, Becker M, Belden LK, Crottini A, Geffers R, Haddad CFB, Harris RN, Holden WM, Hughey M, Jarek M, Kearns PJ, Kerby JL, Kielgast J, Kurabayashi A, Longo AV, Loudon A, Medina D, Nuñez JJ, Perl RGB, Pinto-Tomás A, Rabemananjara FCE, **Rebollar EA**, et al. 2019. Community richness of amphibian skin bacteria correlates with bioclimate at the global scale. Nat Ecol Evol. 3(3):381-389. doi: 10.1038/s41559-019-0798-1.

21. **Rebollar EA**, Bridges T, Hughey MC, Medina D, Belden LK, Harris RN. 2019. Integrating the role of antifungal bacteria into skin symbiotic communities of three Neotropical frog species. ISME J. doi: 10.1038/s41396-019-0388-x.

BOOKS

Zamora O, Gálvez VA, **Rebollar EA**, Illoldi P, Cano S. 2013. Ciencias I, Biología. Serie Explora Primera Edición, Ed. Macmillan-Castillo S.A De C.V.

Zamora O, **Rebollar EA**, Illoldi P, Cano S. 2017. Ciencias I, Biología. Serie Travesías Primera Edición, Ed. Macmillan-Castillo S.A De C.V.

Why are there so many species? The special case of Cuatro Ciénegas microbial diversity, Souza V, **Rebollar EA**, Bonilla G, Espinosa-Asuar L, López-Lozano NE, Avitia M, González A, Eguiarte LE in the book Microbial diversity of Mexico. Eds. Álvarez Sánchez J, Rodríguez Guzmán Alarcón A. First Edition. Ed. SAGARPA, Colegio de Postgraduados, Facultad de ciencias, UNAM. 2019. *In press*.

CHAPTERS IN BOOKS

Rebollar Caudillo E. A. 2018. Los microbiomas de anfibios y su relación con la quitridiomycosis. En: López-Velázquez A., M. D. Basanta y L. M. Ochoa-Ochoa (Eds). Quitridiomycosis en México. Publicación especial de la Sociedad Herpetológica Mexicana A. C. 5: 79-104. ISSN 0188-6835.

CONFERENCE PRESENTATIONS

National (Mexico)

- **Oral presentation** "Modification of the acetylation histone pattern in response to UV light damage in polytene chromosomes of *Drosophila melanogaster*" **Rebollar EA**, Vázquez M, Reynaud E and Zurita M. XXV National Congress of Biochemistry, from November 28th to December 3rd, 2004, Ixtapa Guerrero, Mexico.

- **Poster** "Analysis of the chromatin structure within the α -globin chicken domain" **Rebollar EA**, Rincón-Arano H., Furlan-Magaril M., Escamilla-del-Arenal M., Recillas-Targa, F. XXVI National Congress of Biochemistry, November 12th to 17th, 2006. Guanajuato, Mexico.

- **Poster** "Protection against chromosomal position effect: An insulator present in the α -globin chicken domain" Furlan-Magaril M, Rincón Arano H, **Rebollar EA** and Recillas-Targa F. XXVI National Congress of Biochemistry, November 12th to 17th, 2006. Guanajuato, Mexico.

- **Poster** "The influence of environmental conditions in bacterial evolution: The case of the *Exiguobacterium* genus in the Cuatro Ciénegas Basin, Mexico" **Rebollar EA**, Eguiarte L and Souza V. National Congress of Ecology, November 16th to 21st, 2008, Mérida, Yucatán, México.

- **Oral presentation** "Molecular evolution and bacterial diversification: The case of the *Exiguobacterium* genus in the Cuatro Ciénegas Basin, Mexico." **Rebollar EA**, Souza V. Symposium of students, Institute of Ecology, UNAM, November 18th and 19th, 2010. Mexico city, Mexico.

- **Oral presentation** "Cuatro Ciénegas and microbial evolution" at the first meeting of the Mexican School of Astrobiology, Faculty of Science UNAM, June 13-15th 2011, Mexico city, Mexico.

- **Oral presentation** "Evolutionary history and niche differentiation of *Exiguobacterium*, a halophilic bacterial genus living at Cuatro Ciénegas Basin, Mexico." **Rebollar EA**, Eguiarte Luis E., Mora Lucy and Souza Valeria. National Congress of Biochemistry and Molecular biology of bacteria. November 7th to 11th, 2011, Huatusco, Veracruz, Mexico.

- **Oral presentation** "Simbiosis entre anfibios y bacterias: el papel ecológico del microbioma de la piel en anfibios tropicales". **Rebollar EA**, Bridges T, Hughey M, Belden LK y Harris RN. XVI Mexican Ecology Congress. July 31st to Aug 4th, 2017. León, Guanajuato, Mexico.

International

- **Poster** "Modification of global histone acetylation patterns in response to UV damage in *Drosophila melanogaster* flies lacking Dmp53" **Rebollar EA**, Valadez Graham V, Vazquez M, Reynaud E and Zurita M. FASEB SUMMER RESEARCH CONFERENCES. Chromatin and transcription, July 9-14, 2005. Snowmass, Colorado, USA.

- **Poster** "Modification of global histone acetylation patterns in response to UV damage in *Drosophila melanogaster* flies lacking Dmp53" **Rebollar EA**, Valadez-Graham V, Vazquez M, Reynaud E and Zurita M. Meetings and courses ICGEB affiliated centres. Chromatin structure, epigenetics and cancer, October 14-17, 2005. Hacienda Vista hermosa, Morelos Mexico.

- **Poster** "Chromatin domain structure and regulation of the chicken α -globin group of genes". Recillas-targa F, Rincon-Arano H, Furlan-Magaril M, **Rebollar EA**, Escamilla-del-Arenal M, Guerrero G and Valadez-Graham V. 2005 Meetings and courses ICGEB affiliated centres. Chromatin structure, epigenetics and cancer, October 14-17, 2005. Hacienda Vista hermosa, Morelos Mexico.

- **Poster** "The influence of environmental conditions in bacterial evolution: The case of the *Exiguobacterium* genus in the Cuatro Ciénegas Basin, Mexico" **Rebollar EA**. Latino-american workshop of molecular evolution, Centro de Ciencias Genómicas, UNAM, June 22th to July 3rd, 2009, Cuernavaca, Morelos, México.

- **Poster** "Molecular microevolution and speciation in bacteria: the case of the genus *Exiguobacterium* at Cuatro Ciénegas, Coahuila." **Rebollar EA**, Eguiarte Luis E. and Souza Valeria. Gordon Research

Conference “Microbial population biology”, Proctor Academy July 19th to July 24th, 2009, Boston MA, USA.

- **Poster** “Evolutionary history and niche differentiation of *Exiguobacterium* populations, a halophilic bacterial genus living at Cuatro Ciénegas Basin, Mexico.” **Rebollar EA.**, Avitia M, Eguiarte L.E., Mora L, Bonilla-Rosso G and Souza V. CAREX Conference on Life in Extreme Environments, 17th to October 20th, 2011, Dublin, Ireland.

- **Oral presentation** “Water–sediment niche differentiation in ancient marine lineages of *Exiguobacterium* endemic to the Cuatro Cienegas Basin.” **Rebollar EA.**, Avitia M, Eguiarte L.E., Mora L, Bonilla-Rosso G and Souza V. Astrobiology Conference, from april 17th to 2st, 2012, Atlanta, Georgia, USA

- **Oral presentation** “The lethal fungus *Batrachochytrium dendrobatidis* is present and spreading in lowland tropical forest of eastern Panamá. **Rebollar EA,** Hughey M, Harris RN, Domangue RJ, Medina D, Ibañez R, Belden LK IRCEB Amphibian Disease Meeting Nov 9-10th, 2013, Tempe AZ, USA

- **Poster** “Skin Microbial Diversity of Tropical Frogs from the Rainforest of Panamá”. **Rebollar EA,** Hughey M, Becker M, Harris RN, Belden LK. ASM 114 General meeting May 17-21st 2014, Boston MA.

- **Poster** “Skin microbial diversity of tropical frogs from the rainforest of Panama”. **Rebollar EA,** Hughey M, Harris RN, Belden LK. ISME 15 meeting, August 24th-29th 2014, Seoul, South Korea.

- **Oral presentation** "The effect of habitat, host species, and presence of the pathogen *Batrachochytrium dendrobatidis* on skin bacterial community structure of Panamanian frogs" **Rebollar EA,** Hughey M, Medina D, Ibáñez R, Harris RN, Belden LK, ASM 115 General meeting 2015, Jun 1st- 4th, 2015. Nueva Orleans, USA.

- **Oral presentation** “Understanding the relevance of Bd-inhibitory bacteria on skin microbial communities from three tropical frog species”. **Rebollar EA,** Bridges T, Hughey M, Harris RN, Belden LK. IRCEB Amphibian Disease Meeting, November 12-13, 2016. Tempe, USA.

- **Oral presentation** “Integrating microbial ecology into threatened wildlife management” Eria A. Rebollar, ASM Microbe 2018, June 7th-11th, 2018, Atlanta, USA.

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