

CURRICULUM VITÆ**NAME: JUAN RAFAEL RIESGO ESCOVAR****PROFESSIONAL ADDRESS:**

Departamento de Neurobiología del Desarrollo y Neurofisiología
Instituto de Neurobiología,
Universidad Autónoma de Mexico
Campus UNAM Juruquilla
Querétaro, Mexico

email: riesgo@unam.mx

Phone number: +(52 442) 238 10 69

Fax number: +(52 442) 238 10 05

EDUCATION:

Basic: Modern American School, México, with 9.69 (of 10) global average in high school.

Professional: Universidad Nacional Autónoma de México, (UNAM), Mexico, 1984-1987, 10 (of 10) global average.

Undergraduate thesis: Instituto de Fisiología Celular, UNAM, México, 1987-1988, in the laboratory of Dra. Rocío Salceda.

Graduate Studies: Yale University, 1988-1994, in the laboratory of Dr. John Carlson.

M. S., Yale University, 1989
M. Phil., Yale University, 1990.
Ph.D., Yale University, 1995.

Postdoctoral Work: 1995-1997, in the laboratory of Prof. Dr. Ernst Hafen, Zoologisches Institut der Universität Zürich, Zürich, Switzerland.

Positions, Honors, and Service:

"Diploma de Aprovechamiento", from the Universidad Autónoma de Mexico (UNAM), for achieving an average of 10.0 (of 10) in undergraduate licenciatura studies. 1988.

"Gabino Barreda" Licenciatura Medal, 1988.

Honorific mention for "licenciatura" thesis. UNAM, 1988.

Masters and Ph.D. degrees from Yale University, under the direction of Prof. John Carlson. 1988-1995.

Postdoctoral fellow at Zürich University, Switzerland, under the mentorship of Prof. Ernst Hafen. 1995-1997.

Full-time Investigador titular "A" at the Center (later Institute) of Neurobiología of la UNAM. 1998-2007

Investigador Nacional nivel I, del S.N. I., 1999 -2004.

2002- 2010, Technical Secretary of the Instituto de Neurobiología, UNAM.

Mexican Representative at the Board of the Latin American Society of Developmental Biology (LASDB) 2004-2008.

Reconocimiento Distinción Universidad Nacional Autónoma de México para Jóvenes Académicos en el area de Investigación en Ciencias Naturales (2004).

Prize "Alejandrina" for research and artistic creativity 2005, second place in the Science and Technology area (2005).

Miembro de la terna para la dirección del Instituto de Neurobiología, UNAM, 2006.

Prize "Alejandrina" for research and artistic creativity, 2007, "mención honorífica en el área de Ciencias Exactas y Ambientales (2007)".

Prize of the Fundación Mexicana para la Salud A. C., in the area de Ophthalmology. 2007.

Vice-president of the Latin American Society of Developmental Biology (LASDB) 2008-2012. During this period was principally responsible for the organization of the First Pan-American Congress of Developmental Biology Societies held in Cancún Mexico.

Representative of the Instituto de Neurobiología of the UNAM at the Consejo de Cultura del Campus UNAM Juriquilla. 2009- present.

Editor of PeerJ. 2012-present.

Current position: Member of the Drosophila Board the Genetics Society of America (Representative for Latin America), in two periods (2011-2013) and (2017-2019).

Current position: Vice-president of the Latin American Society of Developmental Biology 2016-2019.

Current position: Investigador titular “B” de tiempo completo en el Instituto de Neurobiología de la UNAM. 2007-present.

Current Position: Associate Professor, Developmental Neurobiology Department, Instituto de Neurobiología, UNAM.

Current Position: Investigador Nacional nivel II, del S.N.I., 2004- present.

Published Papers

1. Mendoza-Ortíz, Miguel Ángel, Murillo-Maldonado, Juan Manuel Riesgo-Escovar, Juan Rafael, aqetzalli is required for epithelial cell polarity and neural tissue formation in Drosophila, **PeerJ.**, 2018 Jun 21;6:e5042.
2. Carlos Alfonso-Gonzalez, Juan Rafael Riesgo-Escovar, Fos Metamorphoses: Lessons from Model Organisms, **Mech. Dev.**, doi: 10.1016/j.mod.2018.05.006. [Epub ahead of print] 2018.
3. Jéssica Álvarez Rendón, Rocío Salceda, Juan Rafael Riesgo-Escovar, Drosophila melanogaster as a Model for Diabetes Type 2 Progression, **BioMed Res. Int.**, 2018; Apr 24;2018:1417528.

4. Murillo-Maldonado J.M., Riesgo-Escovar J.R., Development and Diabetes on the Fly, **Mech. Dev.**, 2017; 144, 150-155.
5. Nestor Octavio Nazario-Yepiz, Juan Rafael Riesgo-Escovar, piragua encodes a zinc finger protein required for development in Drosophila, **Mech. Dev.**, 2017; 144(B), 171- 181.
6. José Zamudio Arroyo, Juan Rafael Riesgo-Escovar, Drosophila chem mutations disrupt epithelial polarity in Drosophila embryos, **PeerJ.**, 2016; 4, e2731.
7. Deyannira Otero-Moreno, María Teresa Peña-Rangel, Juan Rafael Riesgo-Escovar, Crecimiento y Metabolismo: La regulación y la Vía de la Insulina desde la Mosca de la Fruta, *Tip Revista Especializada en Ciencias Químico-Biológicas*, 2016; 19(2), 116-126.
8. Riesgo-Escovar, J. R., De las Trincheras Defensivas Bacterianas a la Edición Eficiente de Genomas, **Revista de Educación Bioquímica**, 2016; 35(2), 38-42.
9. Rodrigo Meléndez García, David Arredondo Zamarripa, Edith Arnold, Xarubet Ruiz- Herrera, Ramsés Noguez Imma, German Baeza Cruz, Norma Adán, Nadine Binart, Juan Riesgo-Escovar, Vincent Goffin, Benito Ordaz, Fernando Peña-Ortega, Ataúlfo Martínez-Torres, Carmen Clapp, Stéphanie Thebault, Prolactin protects retinal pigment epithelium by inhibiting sirtuin 2- dependent cell death, **EBioMedicine**, 2016; 7, 35-49.
10. Nicanor González-Morales , Miguel Ángel Mendoza-Ortíz , Liisa M. Blowes, Fanis Missirlis, Juan R. Riesgo-Escovar, Ferritin Is Required in Multiple Tissues during Drosophila melanogaster Development, **PLoS One**, 2015.
11. Luis Daniel Ríos-Barrera, Irene Gutiérrez-Pérez, María Domínguez, Juan R. Riesgo Escovar, acal is a Long Non-coding RNA in JNK Signaling in Epithelial Shape Changes During Drosophila Dorsal Closure, **PLoS Genetics**, 2015; 11(2), e1004927.
12. Therese Ann Markow, Giovanni Hanna, Juan R. Riesgo-Escovar, Aldo A. Tellez-Garcia, Maxi Polihronakis Richmond, Nestor O. Nazario-Yepiz, Mariana Ramírez Loustalot Lacleite, Javier Carpinteyro-Ponce, Edward Pfeiler, Population genetics and recent colonization history of the invasive drosophilid *Zaprionus indianus* in Mexico and Central America, **Biological Invasions**, 2014.

13. Pfeiler, E., Richmond, M.P., Riesgo-Escovar, J., Tellez-Garcia, A., Johnson, S., and Markow, T.A., Genetic differentiation, speciation and phylogeography of cactus flies (Diptera: Neriidae: Odontoloxozus) from Mexico and southwestern USA., **Biological Journal of the Linnean Society**, 2013.
14. Gustavo Sánchez-Chávez, Ma. Teresa Peña-Rangel, Juan R. Riesgo-Escovar, Alejandro Martínez-Martínez, Rocío Salceda, Insulin stimulated-glucose transporter Glut 4 is expressed in the retina., **PLoS One**, 2012; 2012;7(12):e52959.
15. Luis Daniel Ríos-Barrera, Juan Rafael Riesgo-Escovar, Regulating Cell Morphogenesis: The Drosophila Jun N-Terminal Kinase Pathway, **Genesis**, 2012; Mar;51(3):147-62.
16. José Manuel Zamudio-Arroyo, María Teresa Peña-Rangel, Juan Rafael Riesgo-Escovar, LA UBIQUITINACIÓN: UN SISTEMA DE REGULACIÓN DINÁMICO DE LOS ORGANISMOS, Tip Revista Especializada en Ciencias Químico-Biológicas, 2012; 15(2), 133-141.
17. Murillo-Maldonado J.M., Zeineddine F.B., Stock R., Thackeray J., Riesgo-Escovar J.R., Insulin Receptor-Mediated Signaling via Phospholipase C-gamma Regulates Growth and Differentiation in Drosophila, **PLoS One**, 2011; 6(11), 1-14.
18. Murillo-Maldonado J.M., Sánchez-Chávez G., Salgado L.M., Salceda R., Riesgo-Escovar J.R., Drosophila insulin pathway mutants affect visual physiology and brain function besides growth, lipid and carbohydrate metabolism, **Diabetes**, 2011; 60(0), 1632-1636.
19. René Hernández-Vargas, Luis Fonseca-Ornelas, Ignacio López-González, Juan Riesgo-Escovar, Mario Zurita, Enrique Reynaud, Synphilin suppresses alpha-synuclein neurotoxicity in a parkinson's disease Drosophila model, **Genesis**, 2011; 49(5), 392-402.
20. Miguel Ángel Mendoza Ortiz, María Teresa Peña Rangel, Juan Rafael Riesgo Escovar, La formación del sistema nervioso en la mosca de la fruta, Drosophila melanogaster, Revista Digital Universitaria, 2011; 12(3), 1-5.
21. Olivia Vázquez-Martínez, Angélica Loranca, Lourdes Palma-Tirado, Sabina Wischin-Fuentes, Mónica Villalobos-Leal, Anaid Antaramián, Juan Riesgo-

- Escovar, Rolando Hernández-Muñoz, Mauricio Díaz-Muñoz, Erratum, **Exp. Biol. Med.**, 2010; 235(7), 906.
22. Olivia Vázquez-Martínez, Angélica Loranca, Lourdes Palma-Tirado, Sabina Wischin-Fuentes, Mónica Villalobos-Leal, Anaid Antaramián, Juan Riesgo-Escovar, Rolando Hernández-Muñoz, Mauricio Díaz-Muñoz, Time course of retinal degeneration associated with the absence of 1,4,5- inositol trisphosphate receptor in *Drosophila melanogaster*, **Exp. Biol. Med.**, 2010; 235(3), 365-372.
 23. Luna, M., Rodríguez-Méndez, A.J., Berumen, L.C., Riesgo-Escovar, J., Baudet, M-L, Harvey, S. and ARÁMBURO, C., IMMUNE GROWTH HORMONE (GH): LOCALIZATION OF GH AND GH mRNA IN THE BURSA OF FABRICIUS. **Dev. Comp. Immunol.**, 2008; 32(11), 1313-1325.
 24. Peña-Rangel, M. T.; Riesgo-Escovar, J. R.; Sanchez-Chavez, G.; Salceda, R., GLYCINE TRANSPORTERS (GLYCINE TRANSPORTER1 AND GLYCINE TRANSPORTER 2) ARE EXPRESSED IN RETINA., **Neuroreport** 2008; 19(13), 1295-1299.
 25. Rivera, J.C., Aranda, J., Riesgo-Escovar, J., Nava, G., Thebault, S., López-Barrera, F., Ramírez, M., Martínez de la Escalera, G., Clapp, C, Expression and cellular localization of prolactin and the prolactin receptor in mammalian retina., **Exp. Eye Res.**, 2008; 86(2), 314-321.
 26. Hong A., Narbonne-Reveau K., Riesgo-Escovar J.R., Fu H., Aladjem M. I., Lilly M.A., THE CYCLIN-DEPENDENT KINASE INHIBITOR DACAPO PROMOTES REPLICATION LICENSING DURING DROSOPHILA ENDOCYCLES., **EMBO J.**, 2007; 26, 2071-2082.
 27. Aranda J., Rivera J. C., Jeziorski M. C., Riesgo-Escovar J., Nava G., López-Barrera F., Quiroz-Mercado H., Berger P., Martínez de la Escalera G. and Clapp C, Prolactins are natural inhibitors of angiogenesis in the retina, **Invest. Ophthalmol. Vis. Sci.**, 2005; 46, 2947-2953.
 28. PeñaRangel, María Teresa Riesgo-Escovar, Juan Rafael, NUEVAS FUNCIONES PARA LAS FOSFOLIPASAS Y ACILTRANSFERASAS DE FOSFOLIPIDOS: UNA BREVE REVISION DE LAS FUNCIONES Y EL METABOLISMO DE FOSFOLIPIDOS., **Mensaje Bioquímico**, 2005; XXIX(0), 65-80.

29. López-Vera, E., Heimer de la Cotera, E.P., Maillo, M., Riesgo-Escovar, J.R., Olivera, B.M., Aguilar, M.B., A novel structural class of toxins: The methionine-rich peptides from the venoms of turrid marine snails (Mollusca, Conoidea), **Toxicon**, 2004; 43(0), 365-374.
30. Abbeyquaye T., Riesgo-Escovar J.R., Raabe T., Thackeray J. R., EVOLUTION OF GAB FAMILY ADAPTOR PROTEINS., **Gene**, 2003; 311(0), 43-50.
31. Olivia Vázquez-Martínez, Rafael Cañedo-Merino, Mauricio Díaz-Muñoz y Juan Riesgo-Escovar. Biochemical characterization, distribution and phylogenetic analysis of *Drosophila melanogaster* ryanodine and IP₃ receptors, and thapsigargin-sensitive Ca²⁺ ATPase., **J. Cell Sci.**, 2003; 116(0), 2483-2494.
32. Merrill C.E., Pitts R.J., Riesgo-Escovar J.R., Carlson J.R., Kafatos F.C., Zwiebel L.J. VISUAL ARRESTINS IN OLFACTORY PATHWAYS OF DROSOPHILA AND THE MALARIA VECTOR MOSQUITO ANOPHELES GAMBIAE, **Proc. Natl. Acad. Sci. USA** 2002; 99(0), 1633-1638.
33. Riesgo-Escovar, J. R. El Genoma Humano, **Ciencia**, 2002; 53(0), 6-11.
34. Boehni R., Riesgo-Escovar J.R., Oldham S., Brogiolo W., Stocker H., Andruss B.B.F., et al. AUTONOMOUS CONTROL OF CELL AND ORGAN SIZE BY CHICO, A DROSOPHILA HOMOLOG OF VERTEBRATE IRS1-4, **Cell**, 1999; 7(0), 865-875.
35. Riesgo-Escovar J.R., Hafen E., DROSOPHILA JUN KINASE REGULATES EXPRESSION OF DPP VIA THE ETS-DOMAIN PROTEIN AOP AND THE AP-1 TRANSCRIPTION FACTOR DJUN DURING DORSAL CLOSURE., **Genes Dev.**, 1997; 11(0), 1717-1727.
36. Riesgo-Escovar J.R., Hafen E., COMMON AND DISTINCT ROLES OF DFOS AND DJUN DURING DROSOPHILA DEVELOPMENT, **Science**, 1997; 278(0), 669-672.
37. Riesgo-Escovar J.R., Piekos B., Carlson J.R., THE DROSOPHILA ANTENNA: ULTRASTRUCTURAL AND PHYSIOLOGICAL STUDIES IN WILD-TYPE AND LOZENGE MUTANTS., **J. Comp. Physiol.**, 1997; 180, 151-160.
38. Riesgo-Escovar J.R., Piekos B., Carlson J.R., THE MAXILLARY PALP OF DROSOPHILA: ULTRASTRUCTURE AND PHYSIOLOGY DEPENDS ON

- THE LOZENGE GENE, **J. Comp. Physiol.**, 1997; 180, 143-150.
39. RAABE, T., RIESGO-ESCOVAR, J.R., LUIU, X., BAUSENWEIN, B.S., DEAK, P., MARIY, P. Y HAFEN, E., DOS, A NOVEL PLECKSTRIN HOMOLOGY DOMAINCONTAINING PROTEIN REQUIRED FOR SIGNAL TRANSDUCTION BETWEEN SEVENLESS AND RAS1 IN DROSOPHILA., **Cell**, 1996; 85(0), 911-920.
40. RIESGO-ESCOVAR, J.R., JENNI, M., FRITZ, A. Y HAFEN, E., THE DROSOPHILA JUN N TERMINAL KINASE IS REQUIRED FOR CELL MORPHOGENESIS BUT NOT FOR DJUN DEPENDENT CELL FATE SPECIFICATION IN THE EYE., **Genes Dev.**, 1996; 10, 2759-2768.
41. RIESGO-ESCOVAR, J.R., RAHA, D. Y CARLSON, J., REQUIREMENT FOR A PHOPHOLIPASE C IN ODOR RESPONSE OVERLAP BETWEEN OLFACTION AND VISION IN DROSOPHILA., **Proc. Natl. Acad. Sci USA** 1995; 92, 2864-2868.
42. LILLY, M., RIESGO-ESCOVAR, J.R. Y CARLSON, J., DEVELOPMENTAL ANALYSIS OF THE SMELLBLIND MUTANTS., **Dev. Biol.**, 1994; 162, 1-8.
43. RIESGO-ESCOVAR, J.R., WOODARD, C. Y CARLSON, J., OLFACTORY PHYSIOLOGY IN THE DROSOPHILA MAXILLARY PALPS REQUIRES THE VISUAL SYSTEM GENE RDGB., **J. Comp. Physiol. A.**, 1994; 175, 687-693.
44. RIESGO-ESCOVAR, J.R., WOODARD, C., GAINES, P. Y CARLSON, J., DEVELOPMENT AND ORGANIZATION OF THE DROSOPHILA OLFACTORY SYSTEM AN ANALYSIS USING ENHANCER TRAPS., **J. Neurosci.**, 1992; 23(0), 947-964.
45. SALCEDA, R. Y., RIESGO-ESCOVAR, J. R., CHARACTERIZATION OF CALCIUM UPTAKE IN CHICK RETINAL PIGMENT EPITHELIUM., **Pigm. Cell Res.**, 1990; 3(0), 141-145.
46. PEREZ DE LA MORA, M., MENDEZFRANCO, J., SALCEDA, R. Y RIESGO-ESCOVAR, J.R., A GLUTAMATE DEHYDROGENASE BASED METHOD FOR THE ASSAY OF LGLUTAMIC ACID FORMATION OF PYRIDINE NUCLEOTIDE FLUORESCENT DERIVATIVES., **Anal. Biochem.**, 1989; 180(0), 248-252.

Book Chapters

1. La comunicación y percepción celular. Juan Rafael Riesgo Escovar, Al Otro Lado del Espejo y Como Devine en Investigador, 1, 1, México, diciembre de 2015.
2. Carbohydrate Metabolism in Drosophila: Reliance on the Disaccharide Trehalose. Reyes de la Torre, A. Peña-Rangel, M. T. Riesgo Escovar, J. R., Carbohydrates – Comprehensive Studies on Glycobiology and Glycotechnology, 1, 1, , Croacia, ISBN: InTech, DOI: 10.5772/50633, enero de 2012.
3. Ingeniería Genética: ¿dilema de la sociedad contemporánea? Juan R. Riesgo Escovar, Valores para la Sociedad Contemporánea. ¿En qué pueden creer los que no creen? 1, 1a, , México, noviembre de 2011.
4. Estructura y función de lípidos bioactivos. López-Marín, L. M., Peña-Rangel, M. T., Riesgo-Escovar, J. R., Introducción a la Física Biológica, 2, 1a, México, ISBN: 978-607-7630-77-7, diciembre de 2010.
5. La formación del sistema nervioso de Drosophila melanogaster: genes proneurales, neurogénicos y más. Miguel Angel Mendoza-Ortíz, María Teresa Peña-Rangel, Juan Rafael Riesgo- Escovar, Biología Molecular del Desarrollo, Neurodegeneración y Medicina Gen ómica, , 1a, , México, ISBN: 978-970-764-867-8, diciembre de 2009.
6. LA NEUROTRANSMISION EN NEURONAS RECEPTORAS OLFATORIAS. RIESGO-ESCOVAR, J.R., AVANCES RECIENTES EN LA FISIOLOGIA SENSORIAL, 1a, México, 1995.
7. THE MAXILLARY PALP: A SECOND OLFACTORY ORGAN OF DROSOPHILA. RIESGO-ESCOVAR, J., RAHA. D., AND CARLSON, J., OLFACTION AND TASTE XI, 1a, Estados Unidos de América, 1994.

CITATIONS IN THE SCIENTIFIC LITERATURE: 1912

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CONGRESS ABSTRACTS: 113

MEMBERSHIP IN SCIENTIFIC SOCIETIES: 7

SEMINARS: 64

TUTORED STUDENTS:

5 PHD STUDENTS (GRADUATED)

10 MASTER STUDENTS,

10 UNDERGRADUATE STUDENTS.