

## Angelina Palacios Muñoz

### *Curriculum Vitae*

#### **Personal information**

**Name:** Angelina Palacios Muñoz

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<https://scholar.google.com/citations?hl=en&user=JPR1eygAAAAJ>

**Current position:** Assistant Professor, Facultad de Odontología, Universidad de Valparaíso.

Investigator, Centro Interdisciplinario de Neurociencia de Valparaíso, Facultad de Ciencias, Universidad de Valparaíso, Chile.

#### **1. Education.**

| Degree              | Institution   | Year |
|---------------------|---|------|
| POS-DOCTORADE       | Pontificia Universidad Católica de Chile/Universidad de Valparaíso. | 2016 |
| PhD                 | Universidad de Valparaíso   | 2015 |
| Degree Biochemistry | Pontificia Universidad Católica de Valparaíso                       | 2007 |

#### **2. Positions and Honors.**

##### Positions and employment

2020- present Assistant Professor, Facultad de Odontología, Universidad de Valparaíso, Chile.

2019 Postdoctoral fellow, Centro Interdisciplinario de Neurociencia de Valparaíso, Laboratorio de Neurogenética y Conducta, Facultad de Ciencias, Universidad de Valparaíso, Valparaíso, Chile. Principal Investigator: John Ewer.

2019 Instructor in biology and biochemistry, Departamento de Odontología, Facultad de Odontología, Universidad de Valparaíso, Valparaíso, Chile.

|           |   |
|-----------|---|
| 2019      | Instructor for core in Science course, Departamento de artes liberales, Universidad Adolfo Ibáñez, Viña del mar, Chile.   |
| 2019      | Instructor for Genetics course, Departamento de artes liberales, Universidad Adolfo Ibáñez, Viña del mar, Chile.  |
| 2016-2018 | Postdoctoral fellow, Departamento de Psiquiatría, Laboratorio de Neurociencias, Facultad de Medicina, Pontificia Universidad Católica de Chile, Santiago, Chile. Principal Investigator: Francisco Aboitiz. |
| 2014-2015 | Instructor for Science I course, Departamento de artes liberales, Universidad Adolfo Ibáñez, Viña del mar, Chile.   |
| 2007-2009 | Research Assistant, Eco Vision's Lab. Centro Interdisciplinario de Neurociencia de Valparaíso, Facultad de Ciencias, Universidad de Valparaíso, Valparaíso, Chile. Principal Investigator: Adrian Palacios. |

#### Other Experience and Professional Memberships

|              |   |
|--------------|---|
| 2020-present | Active member of Awards Committee: Trainee and Travel Awards of the Society for Research on Biological Rhythms (SRBR) (2019-to date). Web-page: <a href="https://srbr.org/about-us/committees/">https://srbr.org/about-us/committees/</a> |
| 2016-present | Member, Society for Biological Rhythms  |
| 2006-2009    | Member, Sociedad de Neurociencia de Chile   |

#### Editorial work

2020- present Frontiers in Physiology section Chronobiology (Review Editor, Editorial Board).

### **3. Highlights publications.**

- Valeria Silva, **Angelina Palacios-Muñoz**, Zeynep Okray, Karen L. Adair, Scott Waddell, Angela E. Douglas and John Ewer. (2020). The impact of the gut microbiome on memory and sleep in *Drosophila*. **Journal of Experimental Biology**. 2020 Dec 29:jeb.233619. doi: 10.1242/jeb.233619.
- **Angelina Palacios-Muñoz** and John Ewer. (2018). Calcium and cAMP directly modulate the speed of the *Drosophila* circadian clock. **PLoS Genetics**. Jun 7;14(6):e1007433. doi: 10.1371/journal.pgen.1007433.
- Mareike Selcho\*, Carola Millán\*, **Angelina Palacios-Muñoz\***, Lilian Ubillo, Jiangtian Chen, Franziska Ruf Chihiro Ito, Christian Wegener, and John Ewer.

(2017). Central and peripheral clocks are coupled by a neuropeptide pathway in *Drosophila*. **Nature Communications.** May 30;8:15563. doi:10.1038/ncomms15563. [\*]Equal contribution.

- García IE., Maripillán J., Jara O., Ceriani R., **Palacios-Muñoz A.**, Ramachandran J., et al. (2015) Keratitis-Ichthyosis-Deafness syndrome-associated Cx26 mutants produce nonfunctional gap junctions but hyperactive hemichannels when co-expressed with wild type Cx43. **J Invest Dermatol.** 2015 May;135(5):1338-47. doi: 10.1038/jid.2015.20. Epub 2015 Jan 27
- **Palacios-Muñoz A.**, Escobar MJ., Vielma A, Araya J, Martínez AD, Astudillo A, Valdivia G, García IE., Schmachtenberg O., Hurtado J., Palacios AG (2014) Role of Connexin Channels in Retinal Light Response in a Diurnal Rodent. **Front Cell Neurosci.** 2014 Aug 25;8:249. doi: 10.3389/fncel.2014.00249. eCollection 2014.

#### 4. Book Chapters.

- **Angelina Palacios-Muñoz.** Chapter 8: Biogás. “La Alegría de la Ciencia”. K.E. Whitlock & Ciencia al Tiro. **Edited by:** Whitlock Kathleen, Ewer John, Benjumeda Isabel, **Palacios Angelina**, Rojas Alberto. Andros impresores, registro #247.771. ISBN 978-956-358-304-5. Valparaíso, Chile, 2015.

#### 5. Grants.

- 2019-2022 FONDECYT INICIACIÓN #11190601 (Principal Investigator). **Project ranked number one in the study section (Medicina G1).**
- 2015-2018 FONDECYT Postdoctoral #3160177 (Principal Investigator).
- 2014-2016 Office of Naval Research (ONR), US NAVY, USA. Postdoctoral fellow.

#### 6. Awards and Fellowships:

- Third place award for the best annual summary oral presentation INSAR (International Society Autism Research) Regional Meeting Puerto Varas, Chile 2019.
- Selected by the Latin American Society Chronobiology (LASC) to represent Chile in the Young Scientist Opening Session “Today in Latin American Chronobiology” Call for Young Speakers, XV Latin American Symposium on Chronobiology, Uruguay 2019.
- Annual Award for Innovation in Scientific Education 2015, category Non-formal Scientific Education. Young Science Foundation with the sponsorship of the

Santiago Office of the United Nations Educational, Scientific and Cultural Organization (UNESCO). November 2015.

- Competitive Trainee Travel Award to attend to SRBR 2014, Big Sky Montana, USA (Society for Research on Biological Rhythms) (2014).
- Competitive Travel funding to visit Big Sky, Montana, USA. (Office of Naval Research (ONR) Global, Science & Technology, US Navy) (2014).
- Competitive doctoral Fellowship "Apoyo Tesis Doctoral" CONICYT (Chilean Governmental Agency for Science and Technology) (2011-2012).
- Competitive Fellowship to attend to "53<sup>rd</sup> Annual *Drosophila* Research Conference", Chicago, IL, USA. MECESUP (Fellowship of the University of Valparaíso) (March 7-12, 2012).
- Competitive Fellowship for Doctoral Studies in Chile CONICYT (2010-2013).
- Competitive Fellowship for Doctoral Studies in Chile MECESUP (2009-2010).

## 7. Conferences.

- **Angelina Palacios-Muñoz**, Valeria Silva, Danielle Moreira, Francisco Aboitiz, Maria Rita Passos-Bueno and John Ewer. *Drosophila* mutants of autism candidate gene TRPC6 exhibit impaired sleep homeostasis, disruptions in social behavior, and altered cognitive functions. XV Latin American Symposium on Chronobiology 2019 Colonia del Sacramento, Uruguay.
- **Angelina Palacios-Muñoz**, Isaac García, Francisco Aboitiz, Valeria Silva, Danielle Moreira, Maria Rita Passos-Bueno and John Ewer. *Drosophila* mutants of autism candidate gene TRPC6 exhibit impaired sleep homeostasis, disruptions in social behavior, and altered cognitive functions. International meeting of autism research (INSAR) 2019, Puerto Varas, Chile.
- **Angelina Palacios-Muñoz**, Danielle Moreira, Maria Rita Passos-Bueno and John Ewer. Alterations in social behavior and sleep homeostasis in a *Drosophila* model of autism spectrum disorder. 17<sup>th</sup> European *Drosophila* Neurobiology Conference NEUROFLY 2018, 3-7 September 2018, Krakow, Poland.
- **Angelina Palacios-Muñoz**, Danielle Moreira, Nicolle Damazio, Maria Rita Passos-Bueno and John Ewer. Alterations in circadian and neural functions in a *Drosophila* model of autism spectrum disorder. European Biological Rhythms Society XV Congress, July 30- August 3, 2017, Amsterdam, Holland.
- **Angelina Palacios-Muñoz**, Danielle Moreira, Nicolle Damazio, Maria Rita Passos-Bueno and John Ewer. Alterations in circadian and neural functions in a *Drosophila* model of autism spectrum disorder. XIV Latin American Symposium on Chronobiology 2017, 14-18 November 2017, Valparaíso, Chile.
- **Angelina Palacios-Muñoz**, Mareike Selcho, Carola Millán, Lilian Ubillo, Jiangtian

Chen, Franziska Ruf, Chihiro Ito, Christian Wegener, and John Ewer. The PTTH neuropeptide couples central and peripheral clocks in *Drosophila*. Society for Research on Biological Rhythms, May 21-25 2016, Palm Harbor, FL, USA.

- **Angelina Palacios-Muñoz**, Alex H. Vielma, Adrián G Palacios\_and Andrés E Chávez. Cannabinoid receptor activation modulate the temporal properties of scotopic visual signal in rat retina. XI Reunión anual de la sociedad chilena de neurociencia, 22-25 de Septiembre 2015, Coquimbo, Chile.
- **Angelina Palacios-Muñoz** and John Ewer. *Role of Calcium and cAMP signaling in the prothoracic gland, in the circadian timing of Drosophila emergence*. SRBR 2014, Society for research on biological rhythms, Big Sky, Montana, USA.
- **Palacios-Muñoz A**, Vielma A, Araya J, Astudillo A, Valdivia G, Hurtado J, Schmachtenberg O, Martínez A, Escobar M and Palacios A. Role of connexin channels in the retinal light response of a diurnal rodent. Society for Neuroscience, November 15-19, Washington DC, USA.
- **Angelina Palacios-Muñoz** and John Ewer. *Role of Calcium and cAMP signaling in the prothoracic gland, in the circadian timing of Drosophila emergence*. 23rd European *Drosophila* Research Conference, Barcelona, España, 2013.
- **Angelina Palacios-Muñoz** and John Ewer. *Role of Calcium and cAMP signaling in the prothoracic gland, in the circadian timing of Drosophila emergence. Ultra short presentation of pre-selected young investigators*. XII Latin American Symposium On Chronobiology, Mendoza, Argentina, 2013.
- Carola Millan, **Angelina Palacios-Muñoz**, Lilian Ubillo, Brandon Mark, Felipe Conejera, Steren Chabert, and John Ewer. *Circadian Regulation of Drosophila Adult Emergence through the interactions between a Central and a Peripheral Clock*. XII Latin American Symposium On Chronobiology, Mendoza, Argentina, 2013.
- **Angelina Palacios-Muñoz** and John Ewer. *Calcium and cAMP signaling in the prothoracic gland and its role in the circadian timing of Drosophila eclosion*. 53rd Annual *Drosophila* Research Conference. Sheraton Chicago Hotel & Towers, Chicago, IL, March 7-11, 2012.
- **Angelina Palacios-Muñoz** and John Ewer. *Calcium and cAMP signaling in the prothoracic gland and its role in the circadian timing of Drosophila eclosion*. Chilean Society for Cell Biology XXV Annual Meeting, Puerto Varas, Chile, November 1-5, 2011.
- **Angelina Palacios-Muñoz** and John Ewer. *Calcium and cAMP signaling in the prothoracic gland and its role in the circadian timing of Drosophila eclosion*. 5th International Meeting of the Latin American Society for Developmental Biology, Santa Cruz, Colchagua, Chile, 2010.
- Carola Millán, **Angelina Palacios-Muñoz**, Felipe Conejera, John Ewer. *Reloj circadiano: mecanismos que imponen ritmocidad a la conducta de eclosión en Drosophila*. XXIII Reunión anual de la Sociedad de biología Celular de Chile,



Pucón, Chile, 2009.

- **Angelina Palacios-Muñoz**, Carola Millán y John Ewer. *Genes Halloween y su rol en la regulación circadiana de la eclosión en Drosophila melanogaster*. XXIII Reunión anual de la Sociedad de biología Celular de Chile. Pucón, Chile, 2009.
- Pedro Martínez, **Angelina Palacios-Muñoz**, Erick Olivares, Claudio Elgueta, Agustín D. Martínez, Adrián G. Palacios. *Signaling in the retina of diurnal and nocturnal rodents mediate by retinal gap junctions*. European Retina Meeting, October 8-10, Oldenburg, Alemania, 2009.
- Carola Millán, **Angelina Palacios-Muñoz** and John Ewer. *Halloween genes and PTTH signaling-Role in circadian regulation of adult emergence*. Neurobiology of Drosophila. Cold Spring Harbor, New York, USA, 2009.
- Carolina Soto, **Angelina Palacios-Muñoz** and Adrián Palacios. *OFF-response of the photopic electroretinogram in Octodon degus*. I Congreso de Neurociencias de AL, Caribe y Península Ibérica. Buzios, RJ, Brasil, 2008.
- **Angelina Palacios-Muñoz**, Chávez AE, Palacios AG. *Activación de los receptores canabinoides (CB1) modulan las propiedades temporales de las señales visuales escotópicas en la retina de mamíferos*. LI Reunión Anual de la Sociedad de Biología de Chile, Pucón, Chile, 2008.
- **Angelina Palacios-Muñoz**, Martínez Agustín & Palacios Adrián. *Expresión de Conexina-36 y su participación en la transmisión sináptica en retina de Octodon degus*. III Reunión de Sociedad Chilena de Neurociencia, Los Andes, Chile, 2007.
- Andrés E. Chávez, **Angelina Palacios-Muñoz**, and Jeffrey S. Diamond. *Cannabinoid receptors modulate GABAergic feedback inhibition in rat retina*. 37th Annual Meeting of the Society for Neuroscience, San Diego, USA, 2007.

## 8. Courses and Seminars.

- Course: “Inducción a la Docencia en Universidades del Estado de Chile”. Consorcio de Universidades del Estado de Chile, 12 horas cronológicas de formación, y es dictado en el contexto del Convenio Marco Objetivo en Red. Santiago, September 08, 2020.
- Course: “Classic papers in Genetics”. Facultad de Ciencias, Universidad de Valparaíso, April 01th to July 15th, 2020.
- Course: “Impacto del reloj biológico sobre la vida humana”. Facultad de Ciencias, Universidad de Valparaíso, March 30th to June 15th, 2019.
- III Versión “Creando una cultura del autismo en Chile: Derecho, inclusión y participación”. Hospital Naval, Viña del Mar, September 11-12th, 2017.
- II Versión “Creando una cultura del autismo en Chile”. Escuela de Medicina, Universidad de Valparaíso, August 4-5th, 2016.

- Simposio "Neuroscience meets Valparaíso" November 28-29th, 2012. Parque Cultural Ex-Cárcel, Valparaíso.
- Simposio "40 Years of Ions Channels" A marriage of convenience, Octubre 25-27th, 2011; Centro Interdisciplinario de Neurociencias de Valparaíso.
- Course: "Desarrollo, Genética y Evolución", dictated by Dr. John Ewer, Centro Interdisciplinario de Neurociencias de Valparaíso, August 3th to December 15<sup>th</sup>, 2010.
- International Course: Small Brain, Big Ideas; Biomedical Insights from Invertebrate Neuroscience Research. Universidad de Chile, Santiago de Chile, October 25-30<sup>th</sup>, 2010.
- International Course: Advanced Insect Development Genetics and Genomics. Universidad de Chile, Santiago de Chile, December 2-12<sup>th</sup>, 2009.

## 9. Outreach Activities

- Videos Pandemia 2020, Coronavirus (COVID-19). Grupo Ciencia Al Tiro, Universidad de Valparaíso. <https://cienciaaltiro.cl/proyectos/pandemia-2020/>
- Interview in Duna radio. <https://www.youtube.com/watch?v=O7-L57rNbJ0>
- “Experimenta ciencia de nin@s”. TV program to children that show the work of a scientist (**Angelina Palacios-Muñoz**) for a day in the Centro Interdisciplinario de Neurociencias de Valparaíso. Consejo Nacional de Televisión Infantil with 78 channels from Porvenir to Putre and to 7.800 public schools of Chile. <https://infantil.cntv.cl/videos/neurociencia-que-no-te-de-sueno>
- Discussion panel member in “Conversas en Ciencias”, Universidad de O’Higgins (UOH), December 3, 2018. <https://www.youtube.com/watch?v=ljyod73WSRY&feature=youtu.be&t=901>
- Talk on “*Drosophila melanogaster* as model organism to biological research” to students of the Colegio Luterano, Viña del Mar, Octubre 2018.
- Interview in Pauta. <http://www.pauta.cl/ciencia-y-tecnologia/cientificas-extremas-iv-dia-y-noche-pasado-y-futuro>
- Interview in the newspaper “Hoy por Hoy”. <http://www.hoyxhoy.cl/2018/11/05/full/cuerpo-principal/4/>
- Interview in the digital newspaper “El mostrador”. <https://m.elmostrador.cl/cultura/2018/10/30/con-mosca-del-vinagre-estudian-trastornos-de-sueno-observados-en-pacientes-con-autismo/>
- Interview in the newspaper “La Cuarta”.



<https://www.lacuarta.com/vivir/noticia/moscas-trastornos-sueno-autismo/305101/>

- Interview in the newspaper “La Cuarta”.  
<https://www.lacuarta.com/cronica/noticia/al-fin-cientificas-aclaran-somos-fomes-chile/313062/>
- “Exploradores: del átomo al cosmos”, TV program of Televisión Nacional de Chile. Interview about circadian clock and how clock changes affect the human healthy .  
<https://www.youtube.com/watch?v=6pb4hPQTA0s>
- “Cambio global”, TV program about “Ciencia Al tiro” science outreach program. To be transmitted by Televisión Nacional de Chile, August 2015.  
<https://www.youtube.com/watch?v=ZNrbqeLf1SU>
- Management of “Ciencia Altiro science outreach program” (March 2015-December 2015). Interdisciplinary Center of Neuroscience of Valparaíso, University of Valparaíso, Chile. Organized workshops for eighth grade students at socially vulnerable public schools in the neighborhood of our university. Director: Dr. Kathleen Whitlock. Web-page: [www.ciencialtiro.cl](http://www.ciencialtiro.cl)
- Active member of “Ciencia Altiro science outreach program” (2009-2014). University of Valparaíso, Chile. Director: Dr. Kathleen Whitlock.