

# Enrique Turiégano Marcos

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**Birth date:** 28-Nov-1976

**Nationality:** Spanish

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## CURRENT POSITION

Senior Lecturer at the Department of Biology, *Universidad Autónoma de Madrid*, Madrid, Spain.

## RESEARCH INTERESTS:

Human Ethology, Behavioral Endocrinology, Facial shape, Geometric Morphometrics, Experimental Economics, Mate Choice, *Drosophila* Sexual Behavior.

## EDUCATION

**Ph.D. in Sciences**, Department of Biology, *Universidad Autónoma de Madrid*, 2007.

Dissertation: “Is feasible the search of genetic factors affecting mate choice in *Drosophila melanogaster*?”

Adviser: Dr. Inmaculada Canal.

**M.S. in Biology** (“Cellular Biology and Genetics” specialization), Department of Biology, *Universidad Autónoma de Madrid*, 2001.

Dissertation: “Genetic and functional characterization of genes homologous to *lmx-1* in *Drosophila melanogaster*”.

**B.S. in Biology**, *Universidad Autónoma de Madrid*, 1999.

## PUBLICATIONS

### Research articles:

1. Rodríguez-Ruiz, C., Sanchez-Pages, S., & **Turiégano, E.** The face of another: anonymity and facial symmetry influence cooperation in social dilemmas. *Evolution and Human Behavior* (2018). Doi: j.evolhumbehav.2018.09.002
2. Muñoz Reyes, J. A., Guerra, R., Polo, P., Cavieres, E., Pita, M., **Turiégano, E.** Using an evolutionary perspective to understand the relationship between physical aggression and academic performance in late adolescents. *Journal of School Violence* (2017), 1-10. doi:15388220.2017.1368397.
3. López-Arias, B., Monedero, I., **Turiégano, E.**, Torroja, L. The *Drosophila* adult neuromuscular junction as a model for unravelling amyloid peptide influence on synapse dynamics Neural Regeneration Research. *Neural Regeneration Research* (2017). 12(2): 1987-1989.

4. López-Arias, B., **Turiégano, E.**, Monedero, I., Canal, I., Torroja, L. Presynaptic A $\beta$ 40 prevents synapse addition in the adult *Drosophila* neuromuscular junction. *PLoS ONE* (2017). 12(5): e0177541.
5. Muñoz-Reyes, J.A., Polo, P., Cid, V., Buccioni, G., Fernández, A.M., Dufey, M., Flores-Prado, L., Beltrami, M., **Turiégano, E.** Differences in mating behavior among university young women of Santiago de Chile in relation to the consumption of oral contraceptive pills. *Interdisciplinaria* (2017). 34(2): 351-368.
6. Muñoz-Reyes, J.A., Polo, P., Valenzuela, N., Guerra, R., Anabalón, K., Hidalgo-Rasmussen, C., **Turiégano, E.** Sexual differences and associations between aggressiveness and quality of life in late adolescents. *Current Psychology* (2016). 1-10. doi:10.1007/s12144-016-9486-3
7. Muñoz-Reyes, J.A., Iglesias, M., Pita, M., **Turiegano E.** Facial features: What women perceive as attractive and what men considerate as attractive. *PLoS ONE* (2015). 10(7): e0132979.
8. Perilloux, C., Muñoz-Reyes, J. A., **Turiegano, E.**, Kurzban, R., Pita, M. Do (non-american) men overestimate women's sexual intentions? *Evolutionary Psychological Science* (2015) 1: 1-5
9. Muñoz-Reyes, J. A., Fernández, A. M., Flores-Prado, L., Guerra, R., **Turiégano, E.** Fighting ability influences mate value in late adolescent men. *Personality and Individual Differences*, (2015) 80: 46-50.
10. Sanchez-Pages S., Rodriguez-Ruiz C., **Turiegano, E.** Facial Masculinity: How the choice of measurement method enables to detect its influence on behaviour.. *PLoS ONE* (2014) 9(11) : e112157.
11. Muñoz-Reyes J.A., Pita M., Arjona M., Sanchez-Pages S., **Turiegano E.** Who is the fairest of them all? The independent effect of attractive features and self-perceived attractiveness on cooperation among women: *Evolution and Human Behavior* (2014) 35: 118-125.
12. Andrés M., **Turiegano E.**, Göpfert, M. C. Canal I., Torroja L.. The extracellular matrix protein Artichoke is required for integrity of ciliated mechanosensory and chemosensory organs in *Drosophila* embryos. *Genetics*. (2014) 196: 1091-1102
13. Muñoz-Reyes J.A., Iglesias-Julios M., Martín-Elola C., Losada M., Monedero I., Pita M., **Turiégano E.** Changes in preference for male faces during the menstrual cycle in a Spanish population. *Anales de Psicología*. (2014) 30: 667-675
14. Muñoz-Reyes J.A., Gil-Burmann C., **Turiegano E.** Digit Ratio 2D: 4D, facial masculinization and aggressiveness in Spanish adolescents. *Estudios de Psicología* (2014) 35: 319-340.

15. Sanchez-Pages S., **Turiegano E.** (2013) Two studies on the interplay between social preferences and individual biological features. *Behavior*. 150:313-335.
16. Losada-Pérez M., Gabilondo H., Molina I., **Turiegano E.**, Torroja L., Thor S., Benito-Sipos J. (2013) *Klumpfuss* controls FMRFamide expression by enabling BMP signaling within the NB 5-6 lineage. *Development*. 140:2181-2189.
17. **Turiegano E.**, Monedero I., Pita M., Torroja L., Canal I. (2013). Effect of *Drosophila melanogaster* Female Size on Male Mating Success. *Journal of Insect Behavior*. 26:89-100.
18. Muñoz-Reyes J.A., Gil-Burmann C., Fink B., **Turiegano E.** (2012). Facial asymmetry and aggression in Spanish adolescents. *Personal and Individual Differences*. 53:857–861
19. Muñoz-Reyes J.A., Gil-Burmann C., Fink B., **Turiegano E.** (2012). Physical strength, fighting ability, and aggressiveness in adolescents. *American Journal of Human Biology*. 24:611-617
20. Gonzalo-Gómez A., **Turiegano E.**, León Y., Molina I., Torroja L., Canal I. (2012). Ih Current Is Necessary to Maintain Normal Dopamine Fluctuations and Sleep Consolidation in *Drosophila*. *PLoS ONE* 7: e36477
21. Sánchez-Pages S., **Turiegano E.** (2010). Testosterone, Facial symmetry and cooperation in the Prisoners' Dilemma. *Physiology & Behavior*. 99:355-361.
22. Herrero P., Magarinos M., Molina I., Benito J., Dorado B., **Turiegano E.**, Canal I., Torroja L. (2007). Squeeze involvement in the specification of *Drosophila* leucokinergetic neurons: Different regulatory mechanisms endow the same neuropeptide selection. *Mechanisms of Development*. 124:427-440.
23. Fernandez-Funez P., Nino-Rosales L., De Gouyon B., She W., Luchak J. M., Martinez P., **Turiegano E.**, Benito J., Capovilla M., Skinner P. J., McCall A., Canal I., Orr H. T., Zoghbi H.Y., Botas J. (2000). Identification of genes that modify ataxin-1-induced neurodegeneration. *Nature* 408:101-106

#### **Divulgative:**

1. **Turiegano E.** (2011). Cuando la Economía se encontró a la Fisiología. *LYCHNOS* 5: 66-71.
2. **Turiégano E.**, Benito J. (2001). Neurodegeneración: modelos animales. *Investigación y Ciencia*. October 2001.

## **INTERNATIONAL MEETINGS PRESENTATIONS**

**2017-** *Facial masculinity and testosterone shifts in the ultimatum game.* J.M. Caperos, C. Rodríguez-Ruiz, M. Iglesias-Julios, M. Pita, J.A. Muñoz-Reyes, E. Turiegano. VI Iberian Primatological Conference. Burgos (Spain). Oral.

*Today I don't like you! Influence of current and former sexual hormones in derogation behavior in women.* C. Rodríguez-Ruiz, B. Martínez-Olmedo, G. Perez-Tejerin, S. Navarro-García, M. Iglesias-Julios, E. Turiegano. VI Iberian Primatological Conference. Burgos (Spain). Poster.

*Oscillation in the perception of attractiveness in female voices throughout menstrual cycle: a study of intrasexual competition in human females.* M. Fernandez-Lara, C. Rodríguez-Ruiz, E. Turiegano. VI Iberian Primatological Conference. Burgos (Spain). Poster.

*Using an evolutionary perspective to understand the relationship between physical aggression and academic performance in late adolescents.* P. Polo, J. A. Muñoz Reyes, R. Guerra, E. Cavieres, M. Pita, E. Turiégano. VI Iberian Primatological Conference. Burgos (Spain). Poster.

**2016-** *Liking or disliking faces: a distinction between preferences and choices in an intrasexual competition context in humans.* C. Rodriguez-Ruiz, M. Iglesias-Julios, J.A. Muñoz-Reyes, M. Pita, E. Turiegano. 11th Annual Meeting of the German Ethological Society. Göttingen (Germany). Poster

**2015-** *Bases biológicas de la conducta humana: ¿Por qué decidimos cooperar?* E. Turiegano. Regular Seminar Cycle of CEA, Univ. Playa Ancha (Valparaiso, Chile). Invited presentation.

**2014-** *Atractivo, cooperación y variables morfométricas en mujeres: algunos resultados inesperados.* E. Turiegano, JA Muñoz-Reyes, M Arjona, M Iglesias-Julios, S Sanchez-Pages, M Pita. XV Congreso Nacional y XII Iberoamericano de la Sociedad Española de Etología. Barcelona (Spain). Oral.

*Estudio de las medidas de la masculinidad facial en relación con el comportamiento.* S.Sanchez-Pages, C Rodriguez-Ruiz, E. Turiegano. XV Congreso Nacional y XII Iberoamericano de la Sociedad Española de Etología. Barcelona (Spain). Oral.

*Competencia intersexual en mujeres y percepción del atractivo: el efecto del ciclo menstrual.* M Iglesias-Julios, JA Muñoz-Reyes, C Rodriguez-Ruiz, M Pita, E. Turiegano. XV Congreso Nacional y XII Iberoamericano de la Sociedad Española de Etología. Barcelona (Spain). Poster.

*Diferencias entre hombres y mujeres en situaciones con potencial sexual: una réplica en cuatro culturas.* JA Muñoz-Reyes, Pita M., E. Turiegano. XV Congreso Nacional y XII Iberoamericano de la Sociedad Española de Etología. Barcelona (Spain). Poster.

*Fighting ability influences mate value in late adolescent men.* JA Muñoz-Reyes, AM Fernández, L Flores-Prado, R Guerra, K Anabalón, E Turiégano 26th Human Behavior and Evolution Society Conference. Natal (Brasil). Poster

**2013-** *Esteroides anabolizantes: Efectos sobre el comportamiento.* E. Turiegano. Jornadas sobre “Salud y lucha contra el dopaje en el deporte“. Invited presentation.

*High fitness features influence cooperative behavior in woman not only through their attractiveness.* E. Turiégano, J.A. Muñoz-Reyes, M. Pita, M. Arjona, S. Sanchez-Pages. 25th Annual Human Behavior and Evolution Society Conference. Miami (USA). Oral

*Misunderstanding in cross-sex relationship initiation.* M. Pita, E. Turiégano. 25th Annual Human Behavior and Evolution Society Conference. Miami (USA). Poster

*Conducta agresiva adolescente, un mecanismo de competición intrasexual vinculada a marcadores antropométricos.* J.A. Muñoz-Reyes, L. Flores-Prado, M. Beltrami, A.M. Fernández and E. Turiegano. V Congreso Iberoamericano de Violencia Escolar. Oral

**2012-** *Aggressiveness, hand grip strength, body mass index, and fighting ability in Spanish adolescents.* J.A. Muñoz-Reyes, C. Gil-Burmann, B. Fink and E. Turiegano. ISHE Conferences, XXI Biennial International Conference on Human Ethology. Oral

*Facial asymmetry and aggressiveness in Spanish adolescents.* J.A. Muñoz-Reyes, C. Gil-Burmann, B. Fink and E. Turiegano. ISHE Conferences, XXI Biennial International Conference on Human Ethology. Poster

*Capacidad de lucha, atractivo y agresividad en adolescentes españoles.* J.A. Muñoz-Reyes, C. Gil-Burmann, H. Arpa, B. Fink and E. Turiegano. XIV National y XI Iberoamerican Ethology Meeting. Sevilla (Spain). Oral.

*Lack of Ih current affects sleep consolidation and activity levels by disrupting normal dopamine fluctuations.* A. Gonzalo, E. Turiegano, Y. Leon, I. Molina, G. Gisselmann, L. Torroja and I. Canal. 14th European Drosophila Neurobiology Conference. Padua (Italy). Poster.

*Differential effect of  $\beta$  variants on synaptic and neuronal loss in adult flies..* B. Lopez-Arias, I. Monedero, E. Turiegano, I. Canal. and L. Torroja. 14th European Drosophila Neurobiology Conference. Padua (Italy). Poster.

**2011-** *Fuerza y estrategias de recalibración de la ira en adolescentes.* J.A. Muñoz-Reyes, C. Gil-Burmann, L. Braschi, B. Fink and E. Turiegano. II Congreso Nacional de Etología (Chile). Santiago de Chile (Chile). Oral.

*Asimetría fluctuante facial y competencia intrasexual en adolescentes.* J.A. Muñoz-Reyes, C. Gil-Burmann, H. Arpa, B. Fink and E. Turiegano. II Congreso Nacional de Etología (Chile). Santiago de Chile (Chile). Poster

*Is current necessary to maintain normal dopamine levels and sleep consolidation in Drosophila melanogaster.* A. Gonzalo, E. Turiegano, Y. Leon, I. Molina, L. Torroja and I. Canal. 22th European Drosophila research conference. Lisbon (Portugal). Poster

**2010-** *El comportamiento en juegos estratégicos: algo más que fisiología.* E. Turiegano and S. Sanchez-Pages. XIII National y X Iberoamerican Ethology Meeting. Ciudad Real (Spain). Oral.

*Is current underlies the proper levels of dopamine in D. melanogaster.* A. Gonzalo, E. Turiegano, Y. Leon, I. Molina, L. Torroja and I. Canal. 13th European Drosophila neurobiology conference. Manchester (UK). Poster.

*Testosterone, facial symmetry and cooperation in the Prisoners' Dilemma.* S. Sanchez-Pages and E. Turiegano. Economic Science Association (ESA) World Meeting 2010. Copenhagen (Denmark). Oral.

*Testosterone, facial symmetry and cooperation in the Prisoners' Dilemma.* S. Sanchez-Pages and E. Turiegano. Southern Europe Experimentalist's Team Workshop 2010 (SEET 2010). Marrakech (Morocco). Oral.

**2009-** *Testosterone, facial symmetry and cooperation in the Prisoners' Dilemma.* S. Sanchez-Pages and E. Turiegano. Workshop on Behaviour, Incentives and Contracts (BIC). Edinburgh (UK). Oral.

**2008-** *Implication of IH potassium channel in circadian rhythms of Drosophila melanogaster.* A. Gonzalo, E. Turiegano, I. Molina, L. Torroja and I. Canal. 12th European symposium on Drosophila Neurobiology 2008. Würzburg, Germany. Poster

**2006-** *Male reproductive success and male size: not a straightforward relationship.* E. Turiegano, A. Gonzalo, I. Canal and L. Torroja. 11<sup>th</sup> European symposium on Drosophila Neurobiology, Leuven, Belgium. Poster.

**2005-** *Regulation of the leukokinin expression in the LHLK neurons.* P. Herrero, M. Magariños, I. Molina, E. Turiegano, B. Dorado, I. Canal and L. Torroja. 2005 Meeting on Neurobiology of *Drosophila*, Cold Spring Harbor, NY. Poster.

*Male reproductive success: different experiments, different effect of size.* E. Turiegano, M. Magariños, B. Dorado, I. Canal and L. Torroja. 2005 Meeting on Neurobiology of *Drosophila*, Cold Spring Harbor, NY. October 2005. Poster.

**2004-** *Does she choose?: A statistical approach.* E. Turiegano, S. Sanchez-Pages, R. Matesanz, J. Benito, L. Torroja and I. Canal. 10<sup>th</sup> European symposium on Drosophila Neurobiology, Neuchâtel, Switzerland. Poster.

**2003-** *Mutations in the G-alpha-i cause elongation of the abdominal portion in the ventral ganglion.* J. Benito, I. Molina, E. Turiégano, I. Canal and L. Torroja. 2003 Meeting on Neurobiology of *Drosophila*, Cold Spring Harbor, NY. Poster.

## **RESEARCH GRANTS AWARDED**

2015 CONICYT (Chile). Principal Investigators (PI): Jose Antonio Muñoz-Reyes and Enrique Turiégano

2014-2016 FONDECYT (Chile). Principal Investigator (PI): Jose Antonio Muñoz-Reyes

2012-2015 Spanish Ministry of Economy and Competitiveness (MINECO). PI: Santiago Sánchez-Pagés

2012 Spanish Ministry of Science and Innovation (MICIIN). PI: Santiago Sánchez-Pagés

2011-2012- EXPLORA Call, MICIIN. PI: Enrique Turiégano

2008-2010- CIEN Foundation. PI: Laura Torroja & Alberto Ferrus

2008- Abbey/Santander Research Funding. PI: Santiago Sanchez-Pages and Enrique Turiégano

2008-2010- CIEN Foundation. PI: Laura Torroja

2008-2011- MICIIN. PI: Laura Torroja

2008- Madrid Regional Government. (CAM). PI: Pilar Herrero

2006- Madrid Regional Government. (CAM). PI: Pilar Herrero

2004-2007- Spanish Ministry of Science and Technology (MCYT). PI: Laura Torroja

2002-2005- La Caixa Foundation, PI: Laura Torroja

2002-2003- Madrid Regional Government. (CAM). PI: Inmaculada Canal

2001-2004- MCYT. PI: Laura Torroja

2000-2003- MCYT. PI: Inmaculada Canal

1999-2000- Madrid Regional Government. (CAM). PI: Inmaculada Canal

1997-2000- Spanish Ministry of Education. PI: Inmaculada Canal

## **WORK EXPERIENCE**

### **Post-doctoral**

Scientific stage (two periods of 6 months) at the *Department of Economics, University of Edinburgh*. With Dr. Santiago Sanchez-Pages. January-June 2008 and 2009.

### **Pre-doctoral**

Predocctoral assistant for practical sessions, Department of Biology, *Universidad Autónoma de Madrid*, January 2004-January 2008.

Junior scientist, financed through a “FPI Comunidad de Madrid” scholarship, Department of Biology, *Universidad Autónoma de Madrid*, January 2001-September 2004.

Junior scientist, financed through a “FPI UAM” scholarship, Department of Biology, *Universidad Autónoma de Madrid*, January 2000-January 2001.

Scientific stage (4 months) at the *Baylor College of Medicine, Houston, Texas*. With Prof. Juan Botas. September-December 2000.

## **TEACHING EXPERIENCE**

### **Undergraduate**

“Animal Physiology” and “Evolution” in BS in Biology Degree, UAM (2008-2015),  
“Animal Physiology” in BS in Environmental Sciences, UAM (2004-2015).

### **Postgraduate:**

“Neurobiology: animal models” in Genetics and Cell Biology MSc, UAM (2010-2012).

PhD supervisor for Dr. Jose Antonio Muñoz-Reyes (UAM. 2012).