

Enrique Turiégano Marcos

(enrique.turiegano@uam.es)

CURRENT POSITION

Profesor Titular (Associate Professor/Reader) 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. Jones, S., Gil-Martí, B., Sacristan-Horcajada, E., Edison, A., Butler, E., Miandashti, N., Roselli, C., Turiegano, E., Boto, T., Kramer, J., Martin, F. (2025). A memory transcriptome time course reveals essential long-term memory transcription factors. *Nature Communications*, 16(1), 9320.
2. Rodriguez-Ruiz, C., Lupu, D. C., Fernandez-Martinez, A. B., Pita, M., & Turiegano, E. (2025) Interplay of polymorphisms in sex hormone receptors and facial sexual differentiation in shaping prosocial behavior. *Scientific Reports*, 15(1), 24901.
3. Lohse, J., Sanchez-Pages, S., & Turiegano, E. (2024). The role of facial cues in signalling cooperativeness is limited and nuanced. *Scientific Reports*, 14(1), 22009.
4. Gil-Martí, B., Isidro-Mézcua, J., Poza-Rodriguez, A., Asti Tello, G. S., Treves, G., Turiegano, E., Beckwith, E. J., & Martin, F. A. (2024). Socialization causes long-lasting behavioral changes. *Scientific Reports*, 14(1), 22302.

5. Lupu, D. C., Monedero, I., Rodriguez-Ruiz, C., Pita, M., & Turiegano, E. (2023). In support of 2D:4D: More data exploring its conflicting results on handedness, sexual orientation and sex differences. *Plos One*, 18(8), e0280514.
6. Gil-Marti, B., Barredo, C. G., Pina-Flores, S., Trejo, J. L., Turiegano, E., & Martin, F. A. (2022). The elusive transcriptional memory trace. *Oxford Open Neuroscience*, 1, kvac008. Sanchez-Pages, S., Vorsatz, M., & Turiegano, E. Masculinity and lying. *Frontiers in Psychology* (2021) 12, 2908.
7. Jones, B., DeBruine, L. M., Flake, J. K., Liuzza, M. T., Antfolk, J., Arinze, N. C., ... & Willis, M.. To which world regions does the valence-dominance model of social perception apply?. *Nature Human Behaviour*. (2021). 5(1), 159-169.
8. Rodriguez-Ruiz, C., Muñoz-Reyes, J. A., Iglesias-Julios, M., Sanchez-Pages, S., & **Turiegano, E.** Sex affects the relationship between third party punishment and cooperation. *Scientific Reports*, (2019). 9(1), 4288.
9. Rodríguez-Ruiz, C., Sanchez-Pages, S., & **Turiegano, E.** The face of another: anonymity and facial symmetry influence cooperation in social dilemmas. *Evolution and Human Behavior* (2019). 40(1): 126-132.
10. 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* (2019), 18: 39-48
11. Durkee, P. K., Polo, P., Muñoz-Reyes, J. A., Rodríguez-Ruiz, C., Losada-Pérez, M., Fernández-Martínez, A. B., **Turiegano, E.**, Buss, D. M., Pita, M. Men's bodily attractiveness: Muscles as fitness indicators. *Evolutionary Psychology*, (2019). 17(2), 1474704919852918
12. Polo, P. P., Munoz-Reyes, J. A., Tapia, A. M. F., Wilson, J. E., & **Turiégano, E.** Self-perceived mate value influences intrasexual competitiveness attitudes in young people of both sexes. *Evolution, Mind and Behaviour* (2019), 1-9.
13. 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* (2018). 37(1):28-37.
14. 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* (2017). 12(2): 1987-1989.
15. López-Arias, B., **Turiégano, E.**, Monedero, I., Canal, I., Torroja, L. Presynaptic Aβ40 prevents synapse addition in the adult Drosophila neuromuscular junction. *PLoS ONE* (2017). 12(5): e0177541.
16. 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.

17. Muñoz-Reyes, J.A., Polo, P., Buccioni, G., Fernandez, A. M., Dufey, M., Flores-Prado, L., Beltrami, M., **Turiegano, E.** Diferencias en la conducta de emparejamiento entre mujeres jóvenes en relación con el consumo de píldoras anticonceptivas orales. *Interdisciplinaria. Revista de Psicología y Ciencias Afines*, (2018). 34(2).
18. 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.
19. 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
20. 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.
21. 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.
22. 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.
23. 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
24. 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
25. 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.
26. Sanchez-Pages S., **Turiegano E.** (2013) Two studies on the interplay between social preferences and individual biological features. *Behavior*. 150:313-335.
27. 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.

28. **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.
29. 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
30. 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
31. 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
32. Sánchez-Pages S., **Turiegano E.** (2010). Testosterone, Facial symmetry and cooperation in the Prisoners' Dilemma. *Physiology & Behavior*. 99:355-361.
33. Herrero P., Magarinos M., Molina I., Benito J., Dorado B., **Turiegano E.**, Canal I., Torroja L. (2007). Squeeze involvement in the specification of *Drosophila* leucokinergic neurons: Different regulatory mechanisms endow the same neuropeptide selection. *Mechanisms of Development*. 124:427-440.
34. 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. Iglesias-Julios M. and **Turiegano E.** (2018). BOOK: “Nuestra herencia animal: La importancia de la historia evolutiva en el comportamiento.” Colección Neurociencia & Psicología. Barcelona: EMSE EDAPP S.L. ISBN: 978-84-17506-64-3
2. **Turiegano E.** (2011). Cuando la Economía se encontró a la Fisiología. *LYCHNOS* 5: 66-71.
3. **Turiegano 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. Turiegano. 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. Rodríguez-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 Rodríguez-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 Rodríguez-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 Aβ 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

Ih current is 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.

Its 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. 11th 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. 10th 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. Turiegano, I. Canal and L. Torroja. 2003 Meeting on Neurobiology of *Drosophila*, Cold Spring Harbor, NY. Poster.

RESEARCH GRANTS AWARDED

2019- Spanish Ministry of Science and Innovation (MICINN). Principal Investigators (PI): **Enrique Turiégano** and Susana Sanchez-Rodriguez.

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 (2008-2026),
“Animal Physiology” in BS in Environmental Sciences, UAM (2004-2023).

Postgraduate:

“Neurobiology: animal models” in Genetics and Cell Biology MSc, UAM (2010-2012;
2019; 2026).

“Experimental design for neurosciences” in Genetics and Cell Biology MSc, UAM
(2020-2026).

PhD supervisor for Dr. Jose Antonio Muñoz-Reyes (UAM. 2012), Dr. Claudia
Rodríguez-Ruiz (UAM, 2019) and Dra. Gil-Martí (UAM, 2025).