

Mauro Santos

Curriculum Vitæ, 07/09/2023

Date of birth: 03/10/1954 in A Coruña (Galicia), Spain
Familial status: Married, 1 daughter



CURRENT POSITION

Full Professor (Genetics)

AFFILIATION AND ADDRESS

Departament de Genètica i de Microbiologia
Universitat Autònoma de Barcelona (*Autonomous University of Barcelona*)
08193 Bellaterra (Barcelona), Spain.

cE3c – Centre for Ecology, Evolution and Environmental Changes & CHANGE –
Global Change and Sustainability Institute, Lisboa, Portugal.

WEB PAGES

- ResearchGate page: https://www.researchgate.net/profile/Mauro_Santos5
- Google Scholar: <https://scholar.google.com/citations?user=7j1hdvwAAAAJ&hl=en>
- ORCID ID: 0000-0002-6478-6570 (<https://orcid.org/0000-0002-6478-6570>)

PAST EDUCATION AND APPOINTMENTS

2005- Present	Universitat Autònoma de Barcelona (Full Professor)
2022	MTA Distinguished Guest Scientist Fellowship. Institute of Evolution, Centre for Ecological Research, Budapest, Hungary
2020	MTA Distinguished Guest Scientist Fellowship. Institute of Evolution, Centre for Ecological Research, Tihany, Hungary. March-June 2020.
2019	Visiting Professor, Pontificia Universidad Católica de Chile, Departamento de Ecología, Santiago de Chile (Chile)
1986 – 2005	Universitat Autònoma de Barcelona (Associate Professor)
2009	Fellow Collegium Budapest, Institute for Advanced Study (Hungary)
2005	Fellow Collegium Budapest, Institute for Advanced Study
2003 – 2004	Fellow Collegium Budapest, Institute for Advanced Study
2000 – 2001	Fellow Collegium Budapest, Institute for Advanced Study
1998	Visiting Professor, University College London (UK)
1996	Visiting Professor, University California Irvine (USA)
1990	Visiting Professor, University Edinburgh (UK)
1988	Visiting Professor, University Buenos Aires (Argentina)
1985 – 1986	Fulbright Post-doctoral Fellow, SUNY at Stony Brook (NY,

	USA)
1978 – 1985	Teaching Assistant, University Santiago de Compostela (Spain)
1978	Trainee, Iowa State University (USA)

DEGREES

- Ph.D. (July 1982) University Santiago de Compostela Biological Sciences \ with “High Distinction”
- B. S. (June, 1977) University Santiago de Compostela.

RECENTLY FUNDED RESEARCH GRANTS

1. Population genomics of adaptation (PopAdapt). 01/09/2022 – 31/08/2025. Ministerio de Ciencia e Innovación (Spain). € 222.640.
2. Population genomics of adaptation in *Drosophila*. 01/01/2018 - 30/09/2021. Ministerio de Economía, Industria y Competitividad (Spain). PI. € 242.700.
3. Drivers of evolutionary change: understanding stasis and non-stasis through integration of micro- and macroevolution. 01/09/2017 – 31/08/2021. The Research Council of Norway. P.I. Nils Chr. Stenseth. 10,000,000 NOK – Norwegian Krone (€ 1,053,533.84).
4. Patterns of genetic variation in *Drosophila*: geographic and seasonal variation across inversions and genes. 01/01/2014 - 30/09/2017. Ministerio de Economía y Competitividad (Spain). PI. € 205,700.
5. Genetic analysis of spatiotemporal variation in invasive *Drosophila* species. 01/01/2011 - 30/06/2014. Ministerio de Economía y Competitividad (Spain). PI. € 205.700.
6. e-Flux – Evolutionary Microfluidix. European Community’s Seventh Framework Programme. 01/02/2009 - 30/06/2012. Coordinator: Eörs Szathmáry. Mauro Santos was the leader of WP5. € 2,3 M.
7. Thermadapt (Thermal adaptation in ectotherms: Linking life history, physiology, behaviour and genetics). European Science Foundation (ESF). 01/10/2006 – 30/04/2012. Wolf Blanckenhorn (Chair), Mauro Santos (Co-Chair). € 485.000.

AWARDS AND FELLOWSHIPS

- 2022 MTA Distinguished Guest Scientist Fellowship (Hungary).
- 2020 MTA Distinguished Guest Scientist Fellowship (Hungary).
- 2010 ICREA Acadèmia Award 2010.
- 2009 Journal of Anatomy Best Paper Prize for 2009.
- 2008 Short-Term Scientific Mission (14/01/2008 – 19/01/2008). COST Programme: Integrating Cooperation Research across Europe (INCORE).
- 2007 Short-Term Scientific Mission (05/02/2007 – 11/02/2007). COST Programme: Prebiotic Chemistry and Early Evolution (COST-STSM-D27-02605).
- 2006 Short-Term Scientific Mission (15/11/2006 – 29/11/2006). COST Programme: Prebiotic Chemistry and Early Evolution (COST-STSM-D27-02181).
- 2005 Short-Term Scientific Mission (10/01/2005 – 27/01/2005). COST Programme: Prebiotic Chemistry and Early Evolution (COST-STSM-D27-00877).
- 2004 Short-Term Scientific Mission (08/07/2004 – 23/07/2004). COST Programme: Prebiotic Chemistry and Early Evolution (COST-STSM-D27-00279).
- 2003 Movilidad de Profesores de Universidad Fellowship. Secretaría de Estado de

- Educación y Universidades (Ministerio de Educación, Cultura y Deporte, Spain). PR2003-0431 (4 months in Collegium Budapest, Institute for Advanced Study, Hungary).
- 2001 European Science Foundation (ESF). Theoretical Biology and Adaptation Workshop (Tihany, Hungary).
- 2000 ESF Scientific Programme on Theoretical Biology of Adaptation. Three months in Eötvös Lóránd University, Dept. of Plant System and Ecology, Budapest (Hungary).
- 1998 ESF Scientific Programme in Population Biology. Three months in University College London.
- 1996 Movilidad de Profesores de Universidad Fellowship. Dirección General de Investigación Científica y Técnica (Ministerio de Educación y Ciencia). PR95-063 (7 months in the University of California at Irvine).
- 1992 European Science Foundation. Workshop on Genetics and Ecology of Metapopulations (Gregynog Residential Centre, nr Newtown, Gales, UK).
- 1990 Movilidad de Profesores de Universidad Fellowship. Dirección General de Investigación Científica y Técnica (Ministerio de Educación y Ciencia). BE90-083 (9 months in the University of Edinburg, UK).
- 1985 – 1986 Fullbright Post-doctoral Fellowship. State University of New York at Stony Brook.
- 1977 – 1980 Doctorate Fellowship. Instituto Nacional de Asistencia y Promoción del Estudiante (I.N.A.P.E.).

ACADEMIC SERVICES

- Co-editor for the special issue in *Frontiers in Genetics* and *Frontiers in Ecology and Evolution* of the ebook “Coping with Climate Change: A Genomic Perspective on Thermal Adaptation” (2021) (<https://www.frontiersin.org/research-topics/10587/coping-with-climate-change-a-genomic-perspective-on-thermal-adaptation>)
- Vice-President of the European Society for Evolutionary Biology (Council member 2007-2011).
- Reviewing for Research Councils internationally: NWO Council for the Earth and Life sciences; European Science Foundation; Israel Science Foundation; European Research Council (ERC); National Science Foundation (NSF); The Danish Council for Independent Research | Natural Sciences; Shota Rustaveli National Science Foundation; Educación, Ciencia y Tecnología ANPCyT, FONCyT (Argentina); Austrian Science Fund (FWF); FONDECYT Science Council (Chile).
- Referee service in scientific publication: for 50+ different journals, including *American Naturalist*; *Annals of the New York Academy of Sciences*; *Biology Letters*; *Biological Theory*; *BMC Evolutionary Biology*; *BMC Developmental Biology*; ; *BioScience*; *Biological Journal of the Linnean Society*; *Current Opinion in Systems Biology*; *Evolution*; *Functional Ecology*; *Genetics*; *Journal of Evolutionary Biology*; *Journal of Molecular Evolution*; *Journal of Theoretical Biology*; *Journal of Thermal Biology*; *Methods in Ecology and Evolution*; *Molecular Ecology*; *PeerJ*; *Philosophical Transactions of the Royal Society B*; *PLoS Computational Biology*; *PLoS Genetics*; *PLoS One*; *Proceedings of the*

- National Academy of Sciences of the USA; Proceedings of the Royal Society B; Scientific Reports.
- Guest Editor (together with Eörs Szathmáry) for the special issue of Journal of Theoretical Biology commemorating the life and work of John Maynard Smith (2006).

PUBLICATION LIST, PEER REVIEWED (SINCE 2012)

For a full list with downloadable papers go to my ResearchGate page (link above)

148. Santos, M. A., M. A. Antunes, A. Grandela, A. S. Quina, M. Santos. M. Matos, and P. Simões. 2023. Slow and population specific evolutionary response to a warming environment. **Scientific Reports** 13: 9700.
147. Santos, M. A., A. Grandela, M. A. Antunes, A. S. Quina, M. Santos. M. Matos, and P. Simões. 2023. Sex and population differences underlie variation in reproductive success in a warming environment. **Evolution** 77: 1842–1851.
146. Fontanari, J. F., M. Matos, and M. Santos. 2023. Local adaptation, phenotypic plasticity, and species coexistence. **Frontiers in Ecology and Evolution** 11: 1077374.
145. Alruiz, J. M., I. Peralta-Maraver, F. Bozinovic, M. Santos and E. L. Rezende. 2023. Temperature adaptation and its impact on the shape of performance curves in *Drosophila* populations. **Proceedings of the Royal Society B** 290: 20230507.
144. Santos, M. A., M. A. Antunes, A. Grandela, A. Carromeu-Santos, A. S. Quina, M. Santos. M. Matos, and P. Simões. 2023. Past history shapes evolution of reproductive success in a global warming scenario. **Journal of Thermal Biology** 112: 103478.
143. Santos, M., S. A. M. Varela. 2022. Genetic and Cultural Evolution of Mate Choice. In book: **Illuminating Human Evolution: 150 Years after Darwin**. J. Bertranpetit and J. Peretó (eds.), pp. 187-199. Springer.
142. Alruiz, J. M., I. Peralta-Maraver, F. Bozinovic, M. Santos and E. L. Rezende. 2022. Thermal tolerance in *Drosophila*: Repercussions for distribution, community coexistence and responses to climate change. **Journal of Animal Ecology** 91: 655–667.
141. Santos, M., S. A. M. Varela. 2021. Evolución genética y cultural de la elección de pareja. In book: **Illuminando la evolución humana. Ciento cincuenta años después de Darwin**. J. Peretó and J. Bertranpetit (eds.). Publicacions de la Universitat de València.
140. Santos, M. A., A. Santos, A. S. Quina, M. Santos, M. Matos and P. Simões. 2021. No evidence for short-term evolutionary response to a warming environment in *Drosophila*. **Evolution** 75: 2816-2829.
139. Santos, M., S. A. M. Varela. 2021. Evolució genètica i cultural de la tria de parella. **Treballs de la Societat Catalana de Biologia**, 71: 94-100.
138. Matos, M., P. Simões, I. Fragata, A. S. Quina, T. N. Kristensen and M. Santos. 2021. Editorial: Coping with Climate Change: A Genomic Perspective on Thermal Adaptation. **Frontiers in Genetics** 11:619441
137. Santos, M. A., A. Corromeu-Santos, A. S. Quina, M. Santos, M. Matos and P. Simões. 2021. High developmental temperature leads to low reproduction despite adult temperature. **Journal of Thermal Biology** 95:102794.
136. Szilágyi, A., P. Szabó, M. Santos and E. Szathmáry. 2020. Phenotypes to

- remember: Evolutionary developmental memory capacity and robustness. **PLoS Computational Biology** 16(11):e1008425.
135. Szilágyi, A., V. P. Kovacs, E. Szathmáry and M. Santos. 2020. Evolution of linkage and genome expansion in protocells: The origin of chromosomes. **PLoS Genetics** 16(10):e1009155.
 134. Santos, M. 2020. An interview with Eörs Szathmáry. **eVOLUCIÓN** 14:60-72.
 133. Rezende, E. L., F. Bozinovic, A. Szilágyi and M. Santos. 2020. Predicting temperature mortality and selection in natural *Drosophila* populations. **Science** 369:1242–1245.
 132. Simões, P., M. A. Santos, A. Santos, A. S. Quina, M. Santos and M. Matos. 2020. Beneficial developmental acclimation in reproductive performance under cold but not heat stress. **Journal of Thermal Biology** 90:102580.
 131. Puig Giribets, M., M. Santos, M. P. García Guerreiro. 2020. Basal *hsp70* expression levels do not explain adaptive variation of the warm- and cold-climate O_{3+4+7} and O_{ST} gene arrangements of *Drosophila subobscura*. **BMC Evolutionary Biology** 20:17.
 130. Simões, P., I. Fragata, J. Santos, M. A. Santos, M. Santos, M. R. Rose and M. Matos. 2019. How phenotypic convergence arises in experimental evolution. **Evolution** 73(9):1839-1849.
 129. Castañeda, L. E., V. Romero-Soriano, A. Mesas, D. A. Roff and M. Santos. 2019. Evolutionary potential of thermal preference and thermal tolerance in *Drosophila subobscura*. **Journal of Evolutionary Biology** 32(8):818-824.
 128. Santos, M., M. Matos, S. P. Wang and D. M. Althoff. 2019. Selection on structural allelic variation biases plasticity estimates. **Evolution** 73(5):1057-1062. <https://doi.org/10.1111/evo.13723>.
 127. Puig Giribets, M., M. P. García Guerreiro, M. Santos, F. J. Ayala, R. Tarrío and F. Rodríguez-Trelles. 2019. Chromosomal inversions promote genomic islands of concerted evolution of *Hsp70* genes in the *Drosophila subobscura* species subgroup. **Molecular Ecology** 28:1316-1332.
 126. Stefanidis, I., M. Tziastoudi, E. E. Tsironi, E. Dardiotis, S. V Tachmitzi, A. Fotiadou, G. Pissas, K. Kytoudis, M. Sounidaki, G. Ampatzis, P. R. Mertens, V. Liakopoulos, T. Eleftheriadis, G. M. Hadjigeorgiou, M. Santos and E. Zintzaras. 2018. The contribution of genetic variants of *SLC2A1* gene in T2DM and T2DM-nephropathy: Association study and meta-analysis. **Renal Failure** 40:561-576.
 125. Fragata, I., P. Simões, M. Matos, E. Szathmáry and M. Santos. 2018. Playing evolution in the laboratory: from the first major evolutionary transition to global warming. **EPL (Europhysics Letters)** 122(3): 38001.
 124. Santos, M., M. Sapage, M. Matos and S. A. M. Varela. 2017. Mate-choice copying: a fitness-enhancing behavior that evolves by indirect selection. **Evolution** 71:1456-1464.
 123. Simões, P., I. Fragata, S. G. Seabra, G. S. Faria, M. Santos, M. R. Rose, M. Santos and M. Matos. 2017. Predictable phenotypic, but not karyotypic, evolution of populations with contrasting initial history. **Scientific Reports** 7:913.
 122. Fontanari, J. F. and M. Santos. 2017. The revival of the Baldwin effect. **The European Physical Journal B** 9:186.
 121. de Vladar, H. P., M. Santos and E. Szathmáry. 2017. Grand views of evolution. **Trends in Ecology & Evolution** 32:324-334.
 120. Fragata, I., M. Lopes-Cunha, M. Bárbaro, B. Kellen, M. Lima, G. S. Faria, S. G.

- Seabra, M. Santos, P. Simões and M. Matos. 2016. Keeping your options open: maintenance of thermal plasticity during adaptation to a stable environment. **Evolution** 70:195-206.
119. Simões, P., I. Fragata, M. Lopes-Cunha, M. Lima, B. Kellen, M. Bárbaro, M. Santos and M. Matos. 2015. Wing trait-inversions associations in *Drosophila subobscura* can be generalized within continents, but may change through time. **Journal of Evolutionary Biology** 28:2163-2174.
 118. Castañeda, L. E., E. L. Rezende and M. Santos. 2015. Heat tolerance in *Drosophila subobscura* along a latitudinal gradient: contrasting patterns between plastic and genetic responses. **Evolution** 69:2721–2734.
 117. Vasas, V., C. Fernando, A. Szilágyi, I. Zachár, M. Santos and E. Szathmáry. 2015. Primordial evolvability: impasses and challenges. **Journal of Theoretical Biology** 381:29-38.
 116. Santos, M., E. Szathmáry and J. F. Fontanari. 2015. Phenotypic plasticity, the Baldwin effect, and the speeding up of evolution: the computational roots of an illusion. **Journal of Theoretical Biology** 371:127-136.
 115. Fragata, I., M. Lopes-Cunha, M. Bárbaro, B. Kellen, M. Lima, M. A. Santos, G. Faria, M. Santos, M. Matos, and P. Simões. 2014. How much can history constrain adaptive evolution? A real time evolutionary approach of inversion polymorphisms in *Drosophila subobscura*. **Journal of Evolutionary Biology** 27:2727-2738.
 114. Boza, G., A. Szilágyi, Á. Kun, M. Santos and E. Szathmáry. 2014. Evolution of the division of labor between genes and enzymes in the RNA world. **PLoS Computational Biology** 10(12): e1003936.
 113. Santos, M., M. Matos and S. A. M. Varela. 2014. Negative public information in mate-choice copying helps the spread of a novel trait. **American Naturalist** 184:658-672.
 112. Fragata, I., P. Simões, M. Lopes-Cunha, M. Lima, B. Kellen, M. Bárbaro, J. Santos, M. R. Rose, M. Santos and M. Matos. 2014. Laboratory selection quickly erases historical differentiation. **PLoS One** 9(5): e96227.
 111. Rezende, E. L., L. E. Castañeda and M. Santos. 2014. Tolerance landscapes in thermal ecology. **Functional Ecology** 28:799-809.
 110. Rodríguez-Trelles, F., R. Tarrío and M. Santos. 2013. Genome-wide evolutionary response to a heat wave in *Drosophila*. **Biology Letters** 9: 20130228.
 109. Castañeda, L. E., J. Balanyà, E. L. Rezende and M. Santos. 2013. Vanishing chromosomal inversion clines in *Drosophila subobscura* from Chile: is behavioral thermoregulation to blame? **American Naturalist** 182:249-259.
 108. Kurbalija Novičić, Z., C. Pertoldi, E. Randi, T. N. Kristensen, M. Santos, V. Milankov, M. Stamenković-Radak and M. Andjelković. 2012. Conservation biology: the need for multidisciplinary approaches. **Evolutionary Ecology Research** 14:787-791.
 107. Santos, M., L. E. Castañeda and E. L. Rezende. 2012. Keeping pace with climate change: what is wrong with the evolutionary potential of upper thermal limits? **Ecology and Evolution** 2:2866-2880.
 106. Zintzaras, E. and M. Santos. 2012. Performance of MAX test and degree of dominance index in predicting the mode of inheritance. **Statistical Applications in Genetics and Molecular Biology** 37:432-437.
 105. Castañeda, L. E., G. Calabria, L. A. Betancourt, E. L. Rezende and M. Santos. 2012. Measurement error in heat tolerance assays. **Journal of Thermal Biology**

- 37:432-437.
104. Calabria, G., O. Dolgova, C. Rego, L. E. Castañeda, E. L. Rezende, J. Balanyà, M. Pascual, J. G. Sørensen, V. Loeschcke and M. Santos. 2012. Hsp70 protein levels and thermotolerance in *Drosophila subobscura*: a reassessment of the thermal co-adaptation hypothesis. **Journal of Evolutionary Biology** 21:625-630.
 103. Martínez-Abadías, N., M. Esparza, T. Sjøvold, R. González-José, M. Santos, M. Hernández and C. P. Klingenberg. 2012. Pervasive genetic integration directs the evolution of human skull shape. **Evolution** 66:1010-1023.
 102. Rezende, E. L. and M. Santos. 2012. Comment on ‘Ecologically relevant measures of tolerance to potentially lethal temperatures’. **Journal of Experimental Biology** 215:702-703.
 101. Vasas, V., C. Fernando, M. Santos, S. Kauffman and E. Szathmáry. 2012. Evolution before genes. **Biology Direct** 7:1.

PUBLICATIONS – PERSONAL FAVOURITES

These are some of my favourite’s papers. They are not necessarily those with the “highest impact” or that have attracted more citations. They are simply the ones I have really enjoyed working on the ideas, the bench and/or theoretical work, with exceptional colleagues, and in some places I really liked.

- Fontanari, J. F., M. Matos, and M. Santos. 2023. Local adaptation, phenotypic plasticity, and species coexistence. **Frontiers in Ecology and Evolution** 11: 1077374.
- Szilágyi, A., V. P. Kovacs, E. Szathmáry and M. Santos. 2020. Evolution of linkage and genome expansion in protocells: The origin of chromosomes. **PLoS Genetics** 16(10): e1009155.
- Rezende, E. L., F. Bozinovic, A. Szilágyi and M. Santos. 2020. Predicting temperature mortality and selection in natural *Drosophila* populations. **Science** 369:1242–1245.
- Santos, M., M. Sapage, M. Matos and S. A. M. Varela. 2017. Mate-choice copying: a fitness-enhancing behavior that evolves by indirect selection. **Evolution** 71:1456-1464.
- de Vladar, H. P., M. Santos and E. Szathmáry. 2017. Grand views of evolution. **Trends in Ecology & Evolution** 32:324-334
- Santos, M., E. Szathmáry and J. F. Fontanari. 2015. Phenotypic plasticity, the Baldwin effect, and the speeding up of evolution: the computational roots of an illusion. **Journal of Theoretical Biology** 371:127-136.
- Vasas, V., C. Fernando, M. Santos, S. Kauffman and E. Szathmáry. 2012. Evolution before genes. **Biology Direct** 7:1.
- Rezende, E. L., M. Tejedo and M. Santos. 2011. Estimating the adaptive potential of critical thermal limits: methodological problems and evolutionary implications. **Functional Ecology** 25:111-121.
- Vasas, V., E. Szathmáry and M. Santos. 2010. Lack of evolvability in self-sustaining autocatalytic networks constraints metabolism-first scenarios for the origin of life. **Proceedings of the National Academy of Sciences of the USA** 107:1470-1475.
- Santos, M., and E. Szathmáry. 2008. Genetic hitchhiking can promote the initial

- spread of strong altruism. **BMC Evolutionary Biology** 8:281.
- Rego, C., M. Matos and M. Santos. 2006. Symmetry breaking in interspecific *Drosophila* hybrids is not due to developmental noise. **Evolution** 60:746-761.
 - Kun, A., M. Santos and E. Szathmáry. 2005. Real ribozymes suggest a relaxed error threshold. **Nature Genetics** 37:1008-1011.
 - Santos, M., W. Céspedes, J. Balanyà, V. Trotta, F. C. F. Calboli, A. Fontdevila and L. Serra. 2005. Temperature-related genetic changes in laboratory populations of *Drosophila subobscura*: evidence against simple climatic-based explanations for latitudinal clines. **American Naturalist** 165:258-273.
 - Zintzaras, E., M. Santos and E. Szathmáry. 2002. "Living" under the challenge of information decay: the stochastic corrector model vs. hypercycles. **Journal of Theoretical Biology** 217: 167-181.
 - Santos, M., D. J. Borash, A. Joshi, N. Bounlutay and L. D. Mueller. 1997. Density-dependent selection in *Drosophila*: Evolution of growth rate and body size. **Evolution** 51:420-432.
 - Santos, M., K. Fowler and L. Partridge. 1994. Gene-environment interaction for body size and larval density in *Drosophila melanogaster*: an investigation of effects on development time, thorax length and adult sex ratio. **Heredity** 72:515-521.
 - Silva, P. J. N., R. K. Koehn, W. J. Diehl III, R. P. Ertl, E. B. Winshell and M. Santos. 1989. The effect of glucose 6 phosphate isomerase genotype on in vitro specific activity and in vivo flux in *Mytilus edulis*. **Biochemical Genetics** 27:451-467.
 - Santos, M., A. Ruiz and A. Fontdevila. 1989. The evolutionary history of *Drosophila buzzatii*. XIII. Random differentiation as a partial explanation of the observed chromosomal variation in a structured natural population. **American Naturalist** 133:183-197.
 - McDonald, J. F., S. M. Anderson and M. Santos. 1980. Biochemical differences between products of the *Adh* locus in *Drosophila*. **Genetics** 95:1013-1022.

SELECTED INVITED TALKS

- Seventh Foundations of Biology meeting on the theme 'Evolution: an ongoing synthesis?', supported by the Indian Academy of Sciences. 23 February 2023. Orange County (now Evolve Back) resort at Siddapura, Coorg, India.
Phenotypic Plasticity, Complex Genotype Phenotype (GP) Maps and their Implications, and Genetic Assimilation/Baldwin Effect
- Jawaharlal Nehru Centre for Advanced Scientific Research, 22 February 2023. Jakkur, Bengaluru – 560064 Karnataka, India.
Evolution of mate-choice copying and its putative role in species range expansion
- XXIII Seminario de Genética de Poblaciones y Evolución, 19 January 2023, Las Caldas, Asturias (Spain)
Local adaptation, phenotypic plasticity, and species coexistence
- Institute of Evolution. Centre for Ecological Research. 1121 Budapest, Konkoly-Thege Miklós út 29-33. 15 June 2022.
Local adaptation, phenotypic plasticity, and species coexistence
- Darwinian Neurodynamics. TWCF-Parmenides Concluding Workshop. Reykjavik, Iceland. 10-13 April, 2022
Developmental memory in evolution
- 5th Indian *Drosophila* Research Conference (InDRC), December 2021.

Local adaptation, phenotypic plasticity, and species coexistence

- Institut de Biotecnologia i de Biomedicina, Universitat Autònoma de Barcelona, March 2021

Local adaptation, phenotypic plasticity, and species coexistence

- Pontificia Universidad Católica de Chile, Santiago de Chile, Chile, September 2019.

Phenotypic plasticity and evolution

- Instituto Gulbenkian de Ciência, Oeiras, Portugal, July 2019.

Evolution of linkage and genome expansion in protocells

- XXII Seminario de Genética de Poblaciones y Evolución, November 2018, Aranjuez (Spain).

Evolution of mate-choice copying

- Workshop Re-thinking Matter, Life and Mind - A thorough examination of ideas and models, June 2018, Tegernsee (Germany).
- Parmenides Center for the Conceptual Foundations of Science, November 2017, Pullach (Germany).
- XXVI INSIGHT Meeting, April 2015, Lausanne (Switzerland).
- Workshop: AUTOGENETIC UNFOLDING and EVOLUTION of MATTER, LIFE and MIND. A thorough examination of ideas and models, September 2014, Tegernsee (Germany).
- XXI INSIGHT Meeting, November 2014, Udine (Italy).
- Centro de Biologia Ambiental, Departamento de Biologia Animal, Faculdade de Ciências da Universidade de Lisboa (Portugal), December 2014.
- Institut de Biotecnologia i de Biomedicina, Universitat Autònoma de Barcelona, September 2014.
- Lake Balaton meeting on Systems Chemistry. In memory of Tibor Gánti (1993 – 2009), May 2013, Bodacsony (Hungary).
- Parmenides Center for the Conceptual Foundations of Science, September 2013, Pullach (Germany).
- Institut de Biotecnologia i de Biomedicina, Universitat Autònoma de Barcelona, March 2013.
- An Evolutionary Journey III, October 2012, Universidad Carlos III de Madrid.
- PEG2012 – The Second Symposium of Population and Evolutionary Genetics, May 2012, Belgrade (Serbia).
- ESF Science Meeting – Brainstorming Workshop on Thermal Adaptation, April 2012, Sitges (Spain).
- Sala Charles Darwin, Aulario Interfacultativo, Campus de Burjassot-Paterna, Universitat de Valencia, February 2012.
- Institut fuer Biochemie, Greifswald University (Germany), July 2011.
- Zoological Institute & Museum, Greifswald University (Germany), July 2011.
- Origins of Life – Brainstorming Workshop, May 2011, CERN – European Organization for Nuclear Research, Genève (Switzerland).
- Institute of Biological Research, University of Belgrade, April 2010.
- Veterinärmedizinische Universität Wien (Austria), June 2010.
- Systems Chemistry II: Evolution and Systems, October 2009, Balatonfüred (Hungary).
- Darwin Day - Collegium Budapest, February 2009, Budapest (Hungary).
- TECT – INCORE – NYAS Meeting, November 2008, Barcelona (Spain).

- Third European PhD Complexity School. Evolution in biological systems: from molecules to language, February 2008, Torino (Italy).
- INCORE kick-off Meeting, September 2007, Praga (Czech Republic).
- Faculty of Life Sciences - The University of Manchester, February 2007.
- Centro de Biologia Ambiental, Departamento de Biologia Animal, Faculdade de Ciências da Universidade de Lisboa, July 2005, Lisbon (Portugal).
- XXII International Congress of Entomology, July 2004, Brisbane (Australia).
- Department of Plant Taxonomy and Evolution, Loránd Eötvös University, December 2003, Budapest (Hungary).

MAJOR CONFERENCES (CO-)ORGANIZED

- XXI Seminario de Genética de Poblaciones y Evolución, October 2016, Sitges (Spain).
- XIV Congress of the European Society for Evolutionary Biology – Symposium: Climate Change and Evolution, August 2013, Lisbon (Portugal).
- BRAINSTORMING WORKSHOP ON THERMAL ADAPTATION. Final Meeting of the ESF Scientific Programme “Thermal adaptation in ectotherms: Linking life history, physiology and behaviour”, April 2012, Sitges (Spain).
- Workshop eFlux, October 2010, Sitges (Spain).
- Congress of the Society of Molecular Biology and Evolution, June 2008, Barcelona (Spain).
- ESF Scientific Programme “Thermal adaptation in ectotherms: Linking life history, physiology and behaviour”. Institut d’Estudis Catalans, March 2007, Barcelona (Spain).
- VII Jornada de Biologia Evolutiva. Institut d’Estudis Catalans, July 2007, Barcelona (Spain).
- COST Action D27 Prebiotic Chemistry and Early Evolution. Chembiogenesis 2006. Institut d’Estudis Catalans, December 2006, Barcelona (Spain).
- VIIth Congress of the European Society for Evolutionary Biology (ESEB), August 1999, Bellaterra (Spain).

PHD SUPERVISIONS

1. Gerardo Alfonso Pérez (PhD 2019): Statistical techniques applied to genomic data.
2. Inês Regina Lopes de Mendonça Fragata (PhD 2015): The role of History, Chance and Selection during adaptation: an integrated perspective.
3. Olga Dolgova (PhD 2013): Genetic and phenotypic differentiation in three chromosomal arrangements of *Drosophila subobscura*.
4. Gemma Calabria Garcia (PhD 2012): Inversions cromosòmiques, clines i adaptació a *Drosophila subobscura*: Aproximació mitjançant marcadors moleculars.
5. Vera Vasas (PhD 2012): Evolution before genes – Theoretical analysis of autocatalytic molecular networks and its implications for metabolism- first theories of the origin of life (Awarded as the best PhD thesis).
6. Walkiria Céspedes Vigoya (PhD 2006): Evolución termal del polimorfismo cromosómico y la morfometría del ala en una población experimental de *Drosophila subobscura*.
7. Hafid Laayouni (PhD 2000): Cartografía física de marcadores moleculares polimórficos en *Drosophila buzzatii*: Utilización de Random Amplified Polymorphic DNAs (RAPDs) y generación de Sequence Tagged Sites (STSs).

8. Esther Betrán Paula (PhD 1996): Efecto del polimorfismo cromosómico sobre componentes de la eficacia biológica y caracteres morfológicos en *Drosophila buzzatii*.
9. Jorge Ernesto Quezada Díaz (PhD 1993): Estructura poblacional y patrón de apareamiento de la especie cactófila *Drosophila buzzatii*.
10. Antonio Barbadilla Prados (PhD 1992): Relación del polimorfismo cromosómico con caracteres morfológicos y componentes de selección en una población natural de *Drosophila buzzatii*.

EXTERNAL EXAMINER (PHD)

- Federico Calboli (University College London, UK).
- Archana Nagarajan (Jawaharlal Nehru Centre for Advanced Scientific Research, India).
- Carla Rego (Universidade de Lisboa, Portugal).
- Bodhisatta Nandy (Indian Institute of Science Education and Research, India).
- Hugo Benítez de la Fuente (University of Manchester, UK).
- Marta Alexandra Arandas dos Santos (Universidade de Lisboa, Portugal).
- Neha Pandey (Evolutionary and Organismal Biology Unit Jawaharlal Nehru Centre for Advanced Scientific Research, Bengaluru 560064, India).
- Sara Judite Pais Sario (Universidade do Porto, Portugal).