

Alejandro M. Andirkó, PhD

PERSONAL DETAILS

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EDUCATION

PhD, Cognitive Science and Language program <i>University of Barcelona</i> Supervisor: Cedric Boeckx. Committee: Dan Dediu, Liran Carmel, Fabrizio Mafessoni	2018-2021
MA. Cognitive Science and Language <i>University of Barcelona</i>	2016-2017
BA. Spanish Language and Literature <i>University of Murcia</i>	2012-2016

COURSES

Bioinformatics for Biologists <i>Wellcome Connecting Science (MOOC)</i>	2021
AI for research Workshop <i>Microsoft / University of Barcelona</i>	2020
Archaeological Science in the Post-Genome Era <i>University of Copenhagen, Natural History Museum</i>	2018
Analyses of genotyping and NGS data in medical and population genetics <i>University of Copenhagen</i>	2018

PUBLICATIONS & PREPRINTS

- *Human-derived alleles in SOST and RUNX2 3' UTRs cause differential regulation in a bone cell-line model.* Juan Moriano, Núria Martínez-Gil, **Alejandro Andirkó**, Susana Balcells, Daniel Grinberg, Cedric Boeckx
BioRxiv. <https://doi.org/10.1101/2021.04.21.440797> (2021)
- *A distinct expression profile in the cerebellum and striatum for genes under selection within introgression deserts.* Raul Buisan, Juan Moriano, **Alejandro Andirkó**, Cedric Boeckx
BioRxiv. <https://doi.org/10.1101/2021.03.26.437167> (2021)
- *Fine-grained temporal mapping of derived high-frequency variants supports the mosaic nature of the evolution of Homo sapiens.* **Alejandro Andirkó**, Juan Moriano, Alessandro Vitriolo, Martin Kuhlwilm, Giuseppe Testa, Cedric Boeckx
BioRxiv. <https://doi.org/10.1101/2021.01.22.427608> (2021)

- *An Agent-based model of the gradual emergence of modern linguistic complexity.* Marcel Ruland, **Alejandro Andirkó**, Iza Romanowska, Cedric Boeckx. BioRxiv. <https://doi.org/10.1101/2020.11.12.380683> (2020)
- *Dosage analysis of the 7q11.23 Williams region identifies BAZ1B as a major human gene patterning the modern human face and underlying self-domestication* Matteo Zanella, Alessandro Vitriolo, **Alejandro Andirkó**, Pedro T Martins, Stefanie Sturm, Thomas O'Rourke, Magdalena Laugsch, Natascia Malerba, Adrianos Skaros, Sebastiano Trattaro, Pierre-Luc Germain, Marija Mihailovic, Giuseppe Merla, Alvaro Rada-Iglesias, Cedric Boeckx, Giuseppe Testa Science Advances. <https://doi.org/10.1126/sciadv.aaw7908> (2019)
- *Modern human alleles differentially regulate gene expression across brain regions: implications for brain evolution* **Alejandro Andirkó**, Cedric Boeckx BioRxiv. <https://doi.org/10.1101/771816> (2019 - Last updated: 2020)

TALKS

- *Fine-grained temporal mapping of derived high-frequency variants.* **Alejandro Andirkó** Informal talk at EGHOP journal club, University of Utah (2021)
- *Agent-based modelling and ordered steps towards modern linguistic complexity* Marcel Ruland, **Alejandro Andirkó**, Cedric Boeckx Protolang 6 (2019)
- *7q11.23 Syndromes Reveal BAZ1B as a Master Regulator of the Modern Human Face and Validate the Self-Domestication Hypothesis.* Alessandro Vitriolo, Matteo Zanella, Pedro Tiago Martins, Stefanie Sturm, Thomas O'Rourke, **Alejandro Andirkó**, Magdalena Laugsch, Natascia Malerba, Adrianos Skaros, Sebastiano Trattaro, Pierre-Luc Germain, Giuseppe Merla, Alvaro Rada-Iglesias, Cedric Boeckx, Giuseppe Testa Flash talk — EMBL. Reconstructing the Human Past - Using Ancient and Modern Genomics (2019)
- *A hypothesis concerning how the evolution of prosociality impacted vocal learning.* Pedro T. Martins, Thomas O'Rourke, **Alejandro Andirkó**, Stefanie Sturm, Cedric Boeckx Center for the Interdisciplinary Study of Language Evolution Inaugural Workshop (2019)
- *Rethinking neoteny and neuroplasticity in language evolution.* Bridget Samuels, Pedro Tiago Martins, Thomas O'Rourke **Alejandro Andirkó**, Saleh Alamri, Constantina Theofanopoulou, Cedric Boeckx. SLE Workshop: New Directions in Language Evolution. (2018)
- *The biocognitive 'guns, germs, and steel' underlying Homo sapiens' unique material culture.* **Alejandro Andirkó**, Saleh Alamri, Stefanie Sturm, Thomas O'Rourke, Pedro Tiago Martins, Cedric Boeckx. Evolang12 workshop: *The 'stuff' of language* (2018)

POSTERS

- *Gene expression under human self-domestication: an in silico exploration of modern human high-frequency variants* Thomas O'Rourke, Pedro Tiago Martins, **Alejandro Andirkó**.
Annual Meeting of the Cognitive Science Society 2021 2021
- *Sapiens derived cis-eQTL regulation in brain development and evolution* **Alejandro Andirkó**, Cedric Boeckx
Ettore Majorana center (Erice). Brain and Behavior Evolution in Primates workshop (2019)
- *Complex interactions among language subcomponents.* Thomas O'Rourke, **Alejandro Andirkó**, Stefanie Sturm, Pedro Tiago Martins, Juan Moriano, Sara Silvente i Font, Mireia Rumbo i Roig, Cedric Boeckx
UBICS meeting (2019)
- *Identifying signals of neoteny in modern human evolution through paleogenomics*, **Alejandro Andirkó**, Cedric Boeckx
EMBL. Reconstructing the Human Past - Using Ancient and Modern Genomics (2019)
- *7q11.23 Syndromes Reveal BAZ1B as a Master Regulator of the Modern Human Face and Validate the Self-Domestication Hypothesis.* Alessandro Vitriolo, Matteo Zanella, **Alejandro Andirkó**, Pedro Tiago Martins, Stefanie Sturm, Thomas O'Rourke, Magdalena Laugsch, Natascia Malerba, Adrianos Skaros, Sebastiano Trattaro, Pierre-Luc Germain, Giuseppe Merla, Alvaro Rada-Iglesias, Cedric Boeckx, Giuseppe Testa
EMBL. Reconstructing the Human Past - Using Ancient and Modern Genomics (2019)
- *A functional dissection of the genetic circuits selected in Anatomically Modern Humans and inferred from the study of Neurodevelopmental Disorders.* Adrianos Skaros, Alessandro Vitriolo, Sebastiano Trattaro, Mateo Zanella, **Alejandro Andirkó**, Michael Boettcher, Cedric Boeckx, Giuseppe Testa
EMBL. Reconstructing the Human Past - Using Ancient and Modern Genomics (2019)
- *Language-readiness: Descent, modification, and further modification.* **Alejandro Andirkó**, Thomas O'Rourke, Juan Moriano, Cedric Boeckx
Center for the Interdisciplinary Study of Language Evolution Inaugural Workshop (2019)
- *Glutamatergic modulation of vocal learning circuits through the dopaminergic projections of the Periaqueductal Gray.*, Pedro T. Martins, Thomas O'Rourke, **Alejandro Andirkó**, Stefanie Sturm, Cedric Boeckx
Language and Music in Cognition Spring School (2019)
- *Molecular evolution of human-specific facial traits and socio-cognitive profile: Insights from neurocristopathies.* Matteo Zanella*, Alessandro Vitriolo*, **Alejandro Andirkó**, Nicolo Caporale, Adrianos Skaros, Cedric Boeckx, Giuseppe Testa.
ESHE meeting (2018)
- *The symbolic species?* **Alejandro Andirkó**, Stefanie Sturm, Thomas O'Rourke, Pedro Tiago Martins, Cedric Boeckx.
UBICS meeting (2018)

- *Differences on the OXTR between modern humans and extinct hominids: a window to our language-ready behavior.* **Alejandro Andirkó**, Constantina Theofanopoulou, Cedric Boeckx.
Protolang5 (2017)

GRANTS AND AWARDS

- *Best Science Communication Video.* Thomas O'Rourke, Stefanie Sturm, **Alejandro Andirkó**, Pedro Tiago Martins.
UBICS (2019)
- *Predoctoral research grant*
Spanish Ministry of Science, Universities and Innovation (2018-2022)

SCIENCE OUTREACH

- *¿Cómo evolucionó la cara humana? El síndrome de Williams nos aporta pistas* **Alejandro Andirkó**, Mateo Zanella, Alessandro Vitriolo, Cedric Boeckx, Giuseppe Testa, Pedro Tiago Martins.
Scientific journalism piece at The Conversation (2020) (Spanish edition)
- *Participation in El Quiosco de la Investigación*
Series of workshops that aimed to bridge science and society.
Two sessions
- *It's not about cats.* Stefanie Sturm*, Thomas O'Rourke*, Pedro Tiago Martins*, **Alejandro Andirkó***
Scientific journalism piece at Babel (2019)
- *¿Qué es la vida? El futuro de la biología, 75 años después de Schrödinger* **Alejandro Andirkó***, Stefanie Sturm*, Thomas O'Rourke*, Pedro Tiago Martins*, Cedric Boeckx.
Scientific journalism piece at The Conversation (2018) (Spanish edition). Reappeared in El País, Cadena Ser and other national digital media.
- *Participation in Somos científicos.*
Initiative that pairs high school teenagers and scientists to ask science-related questions.
2 weeks

Intern

2016

Asociación Arqueología de Guardia

Arqueología de Guardia organizes cultural activities, science communication events, and educational workshops involving new findings in the fields of Archaeology, History and Cultural Heritage. As an intern, I participated in the organization and execution of some of these activities, including archaeological prospection, field analysis and talks for non-specialized public.

MEMBERSHIP

- European Society for the Study of Human Evolution (ESHE)

- UBICS (University of Barcelona Institute of Complex Systems).
- AECC: Asociación Española de Comunicación Científica
- Cognitive Science Society

SERVICE

- UBICS: PhD student Representative on the Board of Directors
- Article reviewer/co-reviewer:
 - Evolutionary Bioinformatics
 - Evolutionary Anthropology
 - Proceedings of the Royal Society B: Biological Sciences
 - Journal of Language Evolution
 - Biolinguistics

TECHNICAL SKILLS

- R
- Bash / Shell
- LaTeX

LANGUAGES

Spanish (mother tongue)
Hungarian (mother tongue)
English (fluent)
French (fluent)
Catalan (fair)