

# Alejandro M. Andirkó

Ph.D. student

## PERSONAL DETAILS

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Birth	September 3, 1994
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## EDUCATION

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<b>Ph.D. student</b> <i>University of Barcelona: Cognitive Science and Language</i> Under the supervision of Prof. Cedric Boeckx	2018-
<b>MA. Cognitive Science and Language</b> <i>University of Barcelona</i>	2016-2017
<b>BA. Spanish Language and Literature</b> <i>University of Murcia</i>	2012-2016

## COURSES

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<b>AI for research Workshop</b> <i>Microsoft / University of Barcelona</i>	2020
<b>Archaeological Science in the Post-Genome Era</b> <i>University of Copenhagen, Natural History Museum</i>	2018
<b>Analyses of genotyping and NGS data in medical and population genetics</b> <i>University of Copenhagen</i>	2018

## PUBLICATIONS

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- *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://www.biorxiv.org/content/10.1101/2021.01.22.427608v1> (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)

- *Derived Homo sapiens cis-eQTL regulation: implications for brain evolution* **Alejandro Andirkó**, Cedric Boeckx  
BioRxiv. <https://www.biorxiv.org/content/10.1101/771816v1> (2019)

## TALKS

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- *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

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- *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 Lausch, 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

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

## SCIENCE OUTREACH

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- *¿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 aim to bridge scientists and civil 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, reaching a total readership of 30.000 persons.
- *Participation in Somos científicos*.  
Initiative that brings together high school teenagers and scientists in order to answer their 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 communications for non-specialized public.

## **MEMBERSHIPS**

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- 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**

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- UBICS PhD student Representative on the Board of Directors
- Proceedings of the Royal Society B: Biological Sciences.  
Article co-reviewer
- Evolutionary Bioinformatics.  
Article co-reviewer
- Evolutionary Anthropology.  
Article co-reviewer

- Biolinguistics.  
Article reviewer

## **LANGUAGES**

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