



# AHEAD

Advances in Human Evolution, Adaptation & Diversity

15<sup>th</sup> – 17<sup>th</sup> November 2023, Tarragona

## Conference Schedule

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# AHEAD

Advances in Human Evolution, Adaptation & Diversity

15<sup>th</sup> – 17<sup>th</sup> November 2023  
Antiga Audiència, Plaça del Pallol, 3  
43003 - Tarragona



## Organizing committee:

Mikel Arlegi  
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Marina Lozano  
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## Scientific committee:

Ana Abrunhosa  
Aitor Burguet-Coca  
Vanessa Villalba-Mouco  
Carlotta Zeppilli



## Day 1 – Wednesday 15<sup>th</sup> November

16.30 – 17.30 Registration

17.30 – 18.00 Welcome and institutional greetings

18.00 – 18.45 **Keynote lecture by Dr Antonio Rodríguez-Hidalgo:** *Subsistence strategies to survive, in the Paleolithic and in Academia*

18.45 – 20.00 Welcome drinks

## Day 2 – Thursday 16<sup>th</sup> November

09.00 – 09.50 Registration

09.50 – 11.00 **Podium session 1 - Morphology**

**Ce Liang** - A computational framework to model the normal craniofacial growth in humans up to 48 months of age

**Antonio Profico** - Virtual anthropology, computational anatomy and open-source software

**Thomas A. Püschel** - Within-species encephalization drove the increase in hominin brain size

**Nicole Torres-Tamayo** - A preliminary investigation of the pubic symphysis fusion in five primate species

11.00 – 11.45 **Coffee break**

11.45 – 12.30 **Seminar 1 - Dr Paige Madison:** *Scientific dissemination: how to create engaging content*

12.45 – 13.30 **Seminar 2 - Dr Fatima Sancheznieto:** *Mentoring in academia: challenges and opportunities*

### *Lunch break*

14.30 – 15.30 **Podium session 2 – Molecular anthropology**

**Biancamaria Bonucci** - Metagenomics analysis of ancient dental calculus provide an insight into oral microbial ecology in an Anglo-Saxon population

**Elena Essel** - Tracing touch through time: Ancient human DNA recovered from a Palaeolithic pendant

**Martina Farese** - Exploring Copper Age subsistence trends in the Western Mediterranean basin in light of stable isotope data

**Rémi Tournebize** - Alternatives to Neanderthal admixture: on models, robustness and consensus in human evolution

15.30 – 17.00 **Coffee break**

**Poster Session 1**

17.00 – 17.45 **Seminar 3 - Dr Lorena Tomás Laudo:** *Writing grants: dos and don'ts*

## Day 3 – Friday 17<sup>th</sup> November

### 09.30 – 10.30 Podium session 3 – Humans and their environment

**Diptimayee Behera** - Investigating possible links between Holocene environmental changes and cultural transitions across India

**Loïc Lebreton** - The potential of micromammals for biostratigraphy and the timing of human occupations at La Roche-à-Pierrot (Saint-Césaire, France)

**Margot Louail** - Using ‘trident’ to investigate niche partitioning among mammals: the example of Plio-Pleistocene primates from the Shungura Formation, Ethiopia

**Claudia Speciale** - Human dispersal on small islands and their management and exploitation of plant resources

### 10.30 – 11.00 Coffee break

11.00 – 11.45 **Seminar 4 - Dr Eleanor Dove: *Beyond research: alternative paths in academia***

12.00 – 12.45 **Seminar 5 - Dr Marian Berihuete: *Women in prehistory***

### Lunch break

### 14.00 – 15.00 Podium session 4 – Material culture and behaviour

**Armando Falcucci** - Searching for solid and replicable frameworks in stone tool analysis: A discussion surrounding recent achievements and standing challenges

**Francesc Marginedas** - New insights on the manipulation of Magdalenian human remains from Maszycka Cave (Poland)

**Amanda Merino-Pelaz** - Differential use of space between Neanderthals and Anatomically Modern Humans? A new approach based on cluster process modelling

**Andrés Segovia-Cuellar** - Rethinking the niche of human evolutionary adaptedness

15.15 – 16.45 **Workshop - Dr Soledad De Esteban-Trivigno: *Stepping out of Academia***

16.45 – 17.15 General assembly and podium prize

### Poster session 2

17.15 – 19.30

Closing drinks and poster prize

## Keynote, workshops and seminars



**Keynote: “Subsistence strategies to survive, in the Paleolithic and in Academia”, Wed 15<sup>th</sup>, h. 18.00**

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**Dr Antonio Rodríguez-Hidalgo** is a Paleolithic archaeologist interested in taphonomy, zooarchaeology, forensic anthropology, and cannibalism. His research focuses on human behaviour in the past, with a special interest in the evolution of strategies, tactics, and techniques developed for subsistence. He also delves into human-animal interactions and the formation processes of faunal accumulations. As an archaeologist, he has worked across all chronologies, from 2 million years (Dmanisi, FLK\_North, AGS site) to the mass graves of the Spanish Civil War. His true passion lies in researching human evolution and disseminating his findings to the public. You can follow his updates on X (AKA Twitter) @WhiteRabbit36

**Seminar 1: “Scientific dissemination: how to create engaging content”, Thu 16<sup>th</sup>, h. 11.45**

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**Dr Paige Madison** is a science writer fascinated by paleoanthropology and its history. She has a Bs in anthropology and a PhD in the history of science from Arizona State University, working across the Center for Biology & Society and the Institute of Human Origins. She has written for National Geographic, Aeon, and Sapiens. Her first book, on the story of hobbits in human origins, will be published by Scribner, Simon & Schuster in 2025. You can find her on Twitter @FossilHistory. Her seminar will explore creative ways of reaching and involving public audiences beyond the scientific community when doing science dissemination, to actively involve peers and citizens who would otherwise remain out of reach for traditional methods of communication.



**Seminar 2: “Mentoring in Academia: challenges and opportunities”, Thu 16<sup>th</sup>, h. 12.45**

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Since graduating with her PhD from Oxford University in Biomedical Sciences, **Dr Fátima Sanchezniето** joined the University of Wisconsin – Madison and NRMN initiatives as an Assistant Researcher, focused on developing, evaluating, and implementing interventions that enact departmental and institutional change for the improvement of early career researcher training environments. She is also the president of the nonprofit volunteer organization, *Future of research*, which empowers early career researchers to advocate for better working and training conditions. Her seminar will deal with the importance of mentoring in academia and discuss the difficulties faced by academics both as mentees and mentors during their early careers. The seminar aims to empower early career researchers by discussing how to define the tools to create a healthier and more collaborative work environment.

### Seminar 3: “Writing grants: dos and don’ts”, Thu 16<sup>th</sup>, h. 17.00

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**Dr Lorena Tomás Laudo** has a degree in Chemistry from the University of Zaragoza, Spain. At the end of 2008 she completed her PhD at the University of Bath, UK. After that, she started working as editor of scientific journals at the Royal Society of Chemistry (RSC) in Cambridge. In September 2011, she moved to Tarragona to work as a science communication officer at the Institut Català d’Investigació Química (ICIQ). Later on, in January 2014, she accepted the challenge to lead the Department of Research Projects and Grants at ICIQ. During this time, she has also studied a postgraduate degree in International Cooperation and a master’s degree in Business Administration (MBA) at the Rovira i Virgili University (URV). In January 2023, Lorena joined the URV to be the Director of Research and Innovation. Her seminar will talk about how to write effective and appealing academic grants, with tips and suggestions about how to make the best of your grant application.



### Seminar 4: “Beyond research: alternative paths in academia”, Fri 17<sup>th</sup>, h. 11.00

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**Eleanor Dove** is a Widening Participation Officer at Lancaster University and is in the process of completing a PhD in Biological Anthropology. She runs a number of different programmes to support young people from underrepresented backgrounds in making informed decisions about Higher Education. As part of her role, she has utilised her research and analytical skills to create evidence-based initiatives to support young people from the British South Asian community and Islamic Faith Schools in accessing university. She also co-presents on a local radio show, Education Matters, to increase community engagement. Her seminar will explore educational outreach and engagement beyond academia and research, and how transferable skills from master’s and PhD programmes can support career development in non-academic positions.



### Seminar 5: “Women in Prehistory”, Fri 17<sup>th</sup>, h. 12.00

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**Dr Marian Berihuete** is an archaeologist specialised in the study of fruits, seeds, and the remains of plant reserve organs. Her main research question moves around the understanding of how wild plant management took place within ancient societies and the development of models of interpretation for a better understanding of plant management in the past. Through her work, she is expanding the understanding of the role of women in prehistory. Dr Berihuete got a degree in History (UAM, 2004), and then a PhD in Prehistoric Archaeology (UAB, 2010). Postdoc at the University Hohenheim (Germany) I came back to Catalonia, where she has been a BP AGAUR and a MSCA fellow at IPHES-CERCA. Since January 2023 Dr Berihuete has been a “Ramón y Cajal” researcher at the Prehistory Department, at UAB. Her seminar will provide an overview of the perceived role of women in prehistory and how books and articles investigate or neglect female representation in prehistory. The seminar will also discuss how this impacts how we perceive gender roles today.



### Workshop: “Stepping out of Academia”, Fri 17<sup>th</sup>, h. 15.15

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**Dr Soledad De Esteban-Trivigno** is the scientific Director at the well-known company Transmitting Science. Transmitting Science started in 2012 to manage specialised scientific courses and workshops. Up to date, the company has already run more than 120 advanced courses in different topics related to Life Sciences. The courses cover a wide range of research methods and are aimed at postgraduate students, postdoctoral researchers and established academics from all over the world. The company also offers their services in the organisation of conferences and takes care of its advertising, economic management, website creation and social media coverage. Her interactive and engaging workshop will talk about the opportunities and the skills required to work outside of academia and how to make the most of our academic skills in non-academic environments.



## Poster session 1 (Thursday 16<sup>th</sup>)

- 1 **Morgane Alcalá** - Arachnoid granulations impressions on extant and fossil hominids parietals. The case of the Crouzade's parietal (Aude, France)
- 2 **Carmen Alonso-Llamazares** - The use of navicular bone to estimate sex in human fossil populations
- 3 **Constanza Arecheta Baratelli** - Analysis of lithic technology and use of space in Sierra Baguales, province of Ultima Esperanza, Magallanes and Chilean Antarctica
- 4 **Andion Arteaga-Briebe** - Tracing the roots of Neanderthal behaviour in Atapuerca: Insights from the TD10.2 Bison Bone Bed
- 5 **Sara Bernardini** - Developing life-history reconstructions by stable isotope analysis: an exploratory methodology proposal and its possible applications
- 6 **Susana Carrascal Olmo** - Exploring temporomandibular joint variation in Hominoidea primates through 3D Geometric Morphometric analysis
- 7 **M. Gema Chacón** - Non-conventional knapping sequences in Middle Paleolithic: speleothems exploitation in Level R and Ra at Abric Romaní (Barcelona, Spain)
- 8 **Tannistha Chakraborty** - Age estimation of modern humans based on dental eruption and mandibular formation: a geometric morphometric approach
- 9 **Lloyd A. Courtenay** - Putting back the pieces of the puzzle. New approaches to the reconstruction of fragmentary fossil hominin long bones using geometric morphometrics and a meta-learning based approach
- 10 **Ariana Dann** - Changes in calcaneal morphology in modern humans from the Paleolithic period until recent times
- 11 **Javier Davara** - Molecular-scale analysis of lithic residues: an example from the Middle Palaeolithic site of El Salt (SE Iberia)
- 12 **Dalila De Caro** - Technological behaviour of early hominins in the Lower Palaeolithic site of Marathousa 1 (Megalopolis Basin, Greece). Insights from lithic analysis and experimental knapping
- 13 **Giulia Di Crosta** - Kinship, migrations, and genetic continuity in Moza: investigating the DNA of Levantine early farmers
- 14 **Andrés Domínguez-Vázquez** - Dental morphology analysis of human populations in the Northeast of the Iberian Peninsula during the Middle Neolithic to the Early Bronze Age
- 15 **Brienna Eteson** - An experimental approach exploring factors affecting early stone tool-using efficiency
- 16 **Nolan Ferar** - The puppet method: testing assumptions on the cultural implications of imposed form in the lithic record
- 17 **Charline Foray** - The morphological imprint of sedentism, long bone diaphyseal adaptations in the context of Mesolithic-Neolithic transformations and interactions (Central Balkans, 9500-5500 BC)
- 18 **Riccardo Frittitta** - Digital methodologies and palaeoneurology: the case study of two individuals from the palaeontological site of San Teodoro (Messina)
- 19 **Blanca Garay-Palacios** - On site and laboratory methodology for the recovery of micro and macro plant remains
- 20 **Miriam García Capín** - Anatomically Modern Humans and Neanderthals neurobiology approach for its application in Cognitive Archaeology

- 21 **Gala Gómez-Merino** - 3D registration for the conservation of a child mandible from the Upper Paleolithic site of Molí del Salt (Vimbodí i Poblet, Conca de Barberà, Tarragona, Spain)
- 22 **Richard Giovanni Guamán-Chulunchana** - Paleopathologies of the hands in human populations: rhizarthrosis in archaeological contexts of the island of Gran Canaria (Canary Islands)
- 23 **Laura Hernández Tomé** - Investigating Neanderthal pyrotechnology at El Salt: insights from microcontextual geoarchaeological data
- 24 **Luis Hidalgo Trujillo** - Primate buccal 3DMT for hominins: digging up new models for paleodiet reconstruction
- 25 **Christopher Dean Hopton** - On the Menu: exploitation of aquatic fauna by hominins
- 26 **Ceren Kabukcu** - Carbonized plant macro-remain evidence on prehistoric hunter-gatherer plant food use in Southwest Asia
- 27 **Cirah Alexandra Klassen** - Fossil hominin mandible reconstruction for morphological analysis using digital 3D modelling
- 28 **Mirte Korpershoek** - Rock art as a reflection of human-animal interaction: a case study from the Colombian Amazon
- 29 **Weiya Li** - Where did the earliest farmers in Central China come from?
- 30 **Georga Jane Longhurst** - Beyond the tip of the iceberg: a meta-analysis of the anatomy of the clitoris
- 31 **Risa Luther** - Improving non-human primate dental morphological analyses: differential tooth wear among three extant primate dietary categories

### Poster session 2 (Friday 17<sup>th</sup>)

- 32 **Yulia Makoviychuk** - Reconstructing the biohistory of the people of Nahal Yarmuth 38, a Middle Pre-Pottery Neolithic B site (9,500 cal. BP) from Israel
- 33 **Blanca Lilia Martínez de León Mármol** - Craniofacial plasticity and modularity: local processes during the Late Pleistocene/Holocene in Mexico
- 34 **Alejandro Mayor** - Variations in flint provisioning across time: an example from El Salt rockshelter (Alcoi, eastern Iberia)
- 35 **Chiara Messana** - Countering seasonal environmental constraints: resilient livestock strategies at the middle Iron Age site of Tossal de Baltarga (Cerdanya, eastern Pyrenees)
- 36 **Adeline Morez** - Exploring the Genetic Architecture and Environmental Influences on Skin Pigmentation Diversity in Papua New Guinea
- 37 **Tommaso Mori** - Evaluating the Hypothesis of artificial cranial modification in Arene Candide 12: a Virtual Anthropology approach
- 38 **Carmen Núñez-Lahuerta** - Bird remains from the Late Pleistocene to Holocene site of Cova Foradada
- 39 **Cecilia Padilla-Iglesias** - Cultural Evolution of Central African Hunter-Gatherers reflects a deep history of interconnectivity
- 40 **Viola Polastri** - Estimating ancestry from cranial morphology: a test on a documented collection
- 41 **Marion Prévost** - The use of percussive tools in the Middle Paleolithic: the evidence from the Neshar Ramla (Israel) archaeological sequence



42	<b>Iván Rey-Rodríguez</b> - Palaeoecological reconstruction based on a new methodology for taxonomic rodent studies
43	<b>Andrés Robledo</b> - Staying warm in the past: an experimental approximation around fire use and dwelling scenarios in the prehistoric human life
44	<b>David Rodríguez Antón</b> - The origin of Acheulean and social complexity in East Africa from 1.7 Ma. Paleoenvironmental reconstruction of Olduvai Gorge socioecology and early human economy using phytolith and other plants remains. An experimental study
45	<b>Yu Ru</b> - Bioarchaeological analysis of a case of knee joint ankylosis in the late Western Zhou period in China
46	<b>Zou Ruiqi</b> - Bronze Age subsistence strategies adaptation in Northeast China: enthesal changes, linear measurements and biomechanical evidence
47	<b>Gabriele Russo</b> - Tracing the environment of Middle Paleolithic hominins in Central Levant: new insights from dental wear analysis
48	<b>Jaap P. P. Saers</b> - Skeletal indicators of developmental transitions in locomotor repertoire of African apes
49	<b>Javier Salcines-Montaña</b> - Musculoskeletal stress markers (MSM) of the human skeleton from Las Estalactitas cave (Santillana del Mar, Cantabria): insights into the daily life during the Chalcolithic in Northern Spain
50	<b>Francesco Savarino</b> - Archaeoinformatic applications for the creation of a 3D and a GIS in the Upper Paleolithic site of the Cave of San Teodoro (Acquedolci, ME)
51	<b>Tim Schuurman</b> - Community detection as a proxy for modularity in human brain morphology
52	<b>Santiago Sossa-Ríos</b> - Exploring spatiotemporal variability in the formation of lithic assemblages: the case of the El Salt unit Xb
53	<b>Olga Spaey</b> - Beyond the bestiary: hand stencils as a specific aesthetic system in Upper Palaeolithic art
54	<b>Aristeidis Strimenopoulos</b> - Correlation between dental records and dietary habits of Early Bronze Age populations in the Northwestern Iberian Peninsula
55	<b>Alfredo Suesta</b> - Evaluation of Thin Plate Spline and Partial Least Squares methods for the estimation of missing structures in fossil specimens
56	<b>Xiaofan Sun</b> - A bioarchaeological and neurosurgical research on a therapeutic trepanation from the Yanghai Cemetery in Turpan Basin, China
57	<b>Alejandro Terrazas Mata</b> - The Middle Stone Age (MSA) of Mabewe I in Equatorial Guinea: Complexity of the chaînes opératoires and raw materials selection
58	<b>Noé Valtierra</b> - Effects of high-resolution silicone moulds on cut marks: Implications for further morphological studies
59	<b>Laura A. van Holstein</b> - Did climate change drive the evolution of hominin limb proportions?
60	<b>Javier Villalobos Ruiz</b> - Taphonomic and zooarchaeological analysis of the faunal record from sublevel TD10.4 at Gran Dolina (Sierra de Atapuerca, Burgos)
61	<b>Haiyang Xing</b> - A bioarchaeological study of well-healed foot amputation in early China (4th centuries BCE)

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