

Luca Pagani, PhD | Full Professor in Molecular Anthropology

Department of Biology, University of Padova, Italy, and Institute of Genomics, University of Tartu, Estonia

Education and Training

Institution & Location	Degree	Completion Date	Field of Study
University of Cambridge, Cambridge, UK	PhD	7/2021	Biological Anthropology
Scuola Normale Superiore, Pisa, Italy	BA+MSc (5 years)	12/2009	Molecular Biology
University of Pisa, Italy	MSc (2 years)	9/2009	Molecular Biology
University of Pisa, Italy	BA (3 years)	7/2007	Molecular Biology

A. Personal Statement

I am an established researchers with more than ten years of research experience in the field of Molecular Anthropology and Human Population Genomics. My research interests are based on genomic inference from present day and ancient humans and involve i) the human-neanderthal interaction; ii) the characterization of the Italian past genomic landscape and iii) the excavation of ancient and ongoing genomic signatures from the genomes of present day individuals.

B. Positions, Scientific Appointments and Honors

Positions and Employment

2024 - current Full Professor in Molecular Anthropology. Department of Biology, University of Padova, Italy

2020 - 2024 Associate Professor in Molecular Anthropology. Dept. of Biology, University of Padova, Italy

2016 - current Associate Professor (now Visiting) and Head of the Modern Human Population Genetics Unit. Estonian Biocentre, Institute of Genomics, University of Tartu, Estonia.

2017 - 2020 RTDb (Tenure-track Researcher) in Molecular Anthropology. Department of Biology, University of Padova, Italy

2014 – 2016 Postdoctoral Fellow within the ERC AdvG funded project “MALADAPTED”. Division of Biological Anthropology. University of Cambridge, UK

2013 – 2014 Postdoctoral Fellow. Human Evolution Team. The Wellcome Trust Sanger Institute, Hinxton, UK.

Honors

2021 Antonio Feltrinelli Giovani (Accademia dei Lincei) – Award for Biology (€40,000)

2017 Estonian National Scientific Prize (€20,000, divided among six team members)

2013 ASHG/Charles J. Epstein Trainee Award for Excellence in Human Genetics Research – Semifinalist (\$750 cheque)

2012 ASHG Cotterman Award for the best Research Paper published by a junior scientist in 2012 on the AJHG (1000\$ cheque)

C. Contributions to Science

1. First characterization of the Ethiopian human genome landscape (Pagani et al. 2012, Pagani et al. 2015, Gurdasani et al. 2015). The region has been traditionally described as a potential “cradle of humanity” and the starting point of the major migration that peopled all non-African continents.
2. Clarification of routes Out of Africa and identification of genetic traces of extinct migration in contemporary Papuan populations (Pagani et al. 2016)
3. Disentangling of timing of adaptive introgression from Neanderthals to Humans (Jagoda et al. 2017)
4. Exploitation of ancestry deconvolution approaches to excavate ancient genomic components from contemporary human populations (Yelmen et al. 2019, Molinaro et al. 2019, Yelmen et al. 2021)
5. Development of an ancestry-specific approach to calculate polygenic risk scores (PS) in recently admixed individuals, to exploit knowledge on effect sizes learned independently on diverse continental human populations (Marnetto et al. 2020).

6. Characterization of ancient Italian genomes from Palaeolithic (Bortolini et al. 2021, joint first author) to Bronze (Saupe et al. 2021, joint senior author) and Iron Ages (Aneli et al. 2022, senior author)
7. Ongoing development of a statistical framework to investigate patterns of ongoing assortative mating and post admixture selection in recently admixed individuals in European Biobanks

Scientific Output

Since 2009 I have published **103 articles (37 of which as a first or last author and 67 without my PhD supervisor, Dr. Toomas Kivisild as a co-author)** on major international peer-reviewed journals (Scopus) including **2 Nature and 3 PNAS articles** as first/joint first or senior author and **1 Nature, 2 Science and 2 Cell papers** as co-author. My work has so far attracted a total of **4200 citations** (Scopus) and yielded an **h-index of 35** (Scopus).

<https://www.scopus.com/authid/detail.uri?authorId=49862154800>

Ongoing and past research projects:

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| 2023-2025 | AssoRtative matinG in eurOpeaN humAn popUlaTions (ARGONAUT) (226,000 EUR , Ministry of University and Research, Principal Investigator) |
| 2023-2025 | UMFOLD: Unfolding Mental disorders through recent evolution of brain cortical FOLDing (110,000 EUR , Ministry of University and Research, Unit coordinator) |
| 2022-2023 | Outreach project on Biodiversity and Sustainability (90,000 EUR , University of Padova, Principal coordinator) |
| 2020-2022 | STARs@UniPD 2019 “Ancestry Specific Polygenic scores Evaluation in Recently Admixed individuals” (100,000 EUR, Principal Investigator) |
| 2018-2022 | Estonian Regional Development Funds “Natural selection and migrations in shaping human genetic diversity in East European Plain. An ancient DNA study” (400,000 EUR, Team member) |
| 2019-2021 | UniPd DiBio PRID “Molecular and bioinformatic characterization of Italian ancient human remains from the Anthropology Museum of the University of Padova” (50,000 EUR, Principal Investigator) |
| 2017-2021 | Mobilitas Pluss Top Researcher Grant: Unravelling the Estonian genome: the whole is greater than the sum of its parts; Ente: Mobilitas Pluss (Estonian Regional Development Funds) (570,000 EUR, Principal Investigator) |

D. Teaching

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| 2021-ongoing | Module on Population Genetics – Online Master in Omics data analysis, University of Padova, Italy (https://uel.unipd.it/en/masters/omics-omic-data-analysis/) |
| 2019-ongoing | Main Professor - Computational Anthropology for 2nd year Molecular Biology MSc students, University of Padova, Italy |
| 2017-ongoing | Main Professor - Molecular Anthropology for 1st year Archaeology and Biology MSc students, University of Padova, Italy |
| 2015 Module | BAN3 Human Origins, Biological Anthropology Undergraduates , University of Cambridge, UK |
| 2015 Module | Evolutionary genetics of human populations , Biological Anthropology Tripos, University of Cambridge, UK |