

BIOGRAPHICAL SKETCH

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NAME: Achilli, Alessandro

eRA COMMONS USER NAME (credential, e.g., agency login): ALESSANDRO_ACHILLI

POSITION TITLE: Full Professor of Genetics

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
University of Perugia, Perugia, Italy	MS	07/2001	Biology
University of Pavia, Pavia, Italy	PHD	01/2005	Genetic and Biomolecular Sciences
University School for Advanced Studies, IUSS Pavia, Pavia, Italy	MS	05/2005	Advanced School of Integrated Formation (S.A.F.I.)
University of Pavia, Pavia, Italy	Postdoc	12/2006	Postdoctoral Fellow in Genetics
University of Perugia, Perugia, Italy	Assistant Professor	01/2008	Genetics
University of Pavia, Pavia, Italy	Associate Professor	12/2015	Genetics
University of Pavia, Pavia, Italy	Full Professor	08/2022	Genetics

A. Personal Statement

My research experience began working on the adaptive mutations in *Saccharomyces cerevisiae* and I co-authored (as last author) my first ISI paper (Babudri et al. 2001) prior to completing my master's degree. My PhD and Postdoctoral work at the University of Pavia (from 2001 to 2007) involved a major change in the direction of my studies towards the analysis of mitochondrial DNA sequence variation for defining origins, evolution and dispersal patterns of human populations, with implications also in association studies. In 2008, I put into effect my independency moving to the University of Perugia where I was first Assistant Professor and then Associate Professor of Genetics. During my staying in Perugia, I had the opportunity to create the first population genetics group of the University and expanded my main research focus from human populations to livestock being among the pioneers of a new research field aiming to reconstruct the human history through the study of those animals that after the Neolithic domestication moved together with humans. In 2015, I had the opportunity to move back to the University of Pavia attracted by the novel Strategic theme "MIGRATIONS: towards an INterdisciplinary Governance model". Thanks to the intrinsic multidisciplinary nature of the program, I started working side by side with scholars from different fields increasing my awareness on different aspects and criticalities of the migration processes. The quality of my institution was recently confirmed by its classification among the best 180 departments in Italy. This "Departments of Excellence" program is providing funds to build innovative facilities. I'm currently in charge of a new ancient DNA laboratory at the University of Pavia that allowed me to extend my research activities to the entire genome and to ancient remains (Achilli et al. 2018; Capodiferro et al. 2021).

Currently, my research group routinely apply methodologies of molecular genetics and archaeogenomics aiming to genotype DNAs extracted from (modern and ancient) biological samples and to sequence mitogenomes and nuclear genomes at low and high resolution, which are eventually analyzed with the most up-to-date statistical and bioinformatic tools in a multidisciplinary perspective.

B. Positions, Scientific Appointments, and Honors

PROFESSIONAL EXPERIENCE

2022(Aug)-now. Full Professor of Genetics at the Dept. Biology and Biotechnology, University of Pavia.
2015-2022(July). Associate Professor of Genetics at the Dept. Biology and Biotechnology, University of Pavia.
2008-2015. Associate Professor and Assistant Professor (Ricercatore) of Genetics at the Dept. of Chemistry, Biology and Biotechnology (ex Dept. of Cellular and Environmental Biology), University of Perugia.
2004-2007. Postdoctoral fellow at the Dept. of Genetics and Microbiology, University of Pavia.
2001-2004. PhD Student (with fellowship) at the Dept. of Genetics and Microbiology, University of Pavia.
2000-2001. Internship in the Genetics Lab at the Dept. of Cellular and Environmental Biology, University of Perugia.

VISITING ACADEMIC POSITION

2016-now. *Visiting Scientist* at the University of Huddersfield (UK) to collaborate on European population genetics projects.
2021-now. *Visiting Scientist* at the Northwest A&F University (China) within National International Experts Program.
2017 (Jul-Oct). *Visiting Scientist* at University of Illinois Urbana-Champaign (USA) to contribute to the ancient DNA analysis of Native American populations.
2007-2012. Scientific Consultant and *Visiting Scientist* at the Sorenson Molecular Genealogy Foundation, Utah (USA) to set up a database of ~100.000 mtDNAs from worldwide populations and to develop efficient haplogroup prediction tools.

PROFESSIONAL DUTIES

2017-now. Faculty Member of the PhD program in “Genetics, Molecular and Cellular Biology”. University of Pavia. Supervisor of five PhD theses and two Postdoc fellowships.
2011-2017. Faculty Member of the PhD programs in “Biotechnology” and in “Biology and Ecology”, University of Perugia. Supervisor of two PhD theses and three Postdoc fellowships.
2016-now. Pavia’s University Lecturer of Evolution and Medicine (Harvey Medicine, a Medical Course taught in English), Molecular Genetics (LT - Biotechnologie), Genomics and DNA profiling (LM - Biotechnologie Avanzate) and Molecular Genetics Methodologies (LM – Biologia sperimentale e applicata) (on average 12 CFU, 100 hrs. per year). Supervisor of eleven Master and six Bachelor theses.
2007-2015. Perugia’s University Lecturer for: Molecular Genetics, Genetics, Genetics Engineering and Functional Biology (on average 12 CFU – 94 hrs. per year). Supervisor of 15 Master and/or Bachelor theses.
2017-now. Appointed Representative of the Dept. of Biology and Biotechnology at the University of Pavia for the MERGED center: Migration Recognition Gender Diversity. <https://merged.unipv.it/enhome/>
2015-now. Appointed Representative of the Dept. of Biology and Biotechnology at the University of Pavia for the CISRIC center: Centro Interdipartimentale di Studi e Ricerche per la Conservazione del Patrimonio Culturale. <http://cisric.unipv.it/>

COMMISSIONS OF TRUST

2012-now. Member of the Editorial board of PLoS ONE (ISSN 1932-6203) and GENES (ISSN 2073-4425)..
2008-now. Referee for various ISI journals (e.g. *Am. J. Phys. Anthropol.*, *BMC Genomics*, *BMC Evol. Biol.*, *Curr. Biol.*, *Genes*, *Mol. Biol. Evol.*, *Hum. Biol.*, *J Anthropol Sci.*, *J. Hum. Genet.*, *PNAS USA*, *PLoS ONE*, *Sci. Rep.*).
2008-now. Member of the review board for: European Research Council (ERC), Italian Ministry of Education, University and Research (MIUR), National Science Foundation (USA) and Royal Society (UK).
2003-now. Member of the following Professional Societies: American Society of Human Genetics (from 2008); Italian Society for Evolutionary Biology (from 2006); Italian Genetics Association (from 2003).

AWARDS

2022. Recipient of Teresian Medal as Full Professor at the University of Pavia.
2007. “Città di Ponzano Romano per la Scienza 2007” prize.
2005. Honorable mention for the best PhD thesis annual prize of the Italian Genetics Association (AGI).
2005 and 2004. Advanced School of Integrated Formation S.A.F.I. (I.U.S.S. of Pavia) annual prizes.

C. Contributions to Science

FUNDED PROJECTS

2023-oggi. Coordinator of the MIUR project PRIN2022 entitled “iTAGC: iTalian ArchaeoGenomiCs in the peninsula’s “heart” (cod. 2022Y8BSAL).

2020-2024. Coordinator of the MIUR project PRIN2017 entitled “A multi-species genomic approach to assess pre- and post-Columbian population dynamics in South America” (cod. 20174BTC4R).

2019-2024. External Collaborator in the Sinergia Project SNSF2019 “Out of Asia Linguistic Diversity and Population History”, University of Zurich (No. CRSII5_183578).

2022-2023. Coordinator of the project “Genesi. Dal presente alle diverse origini. La storia della valle di Ledro raccontata dal DNA” funded by MUSE di Trento and Cassa Rurale di Ledro.

2016-2021. Unit Coordinator within the European Project ERC-CoG-2014, No. 648535: “An ARTery of EMPIRE. Conquest, Commerce, Crisis, Culture and the Panamanian Junction, 1513-1671”.

2019-2020. Grant Recipient - “Progetto INROAd - University of Pavia” entitled “SURVIVAL”.

2014-2017. Unit Coordinator within the MIUR project PRIN2012 entitled “Human genetic prehistory: times and modes of geographic and demographic expansions by using highly resolved (calibrated) molecular phylogenies” (cod. 2012JA4BTY_002).

2013-2017. Unit Coordinator within the MIUR project FIRB – Futuro in Ricerca 2012 entitled “The genetic history of Italy as traced by genomic analysis of humans and domesticated animals” (cod. RBFR126B8I_002).

2011-2013. Unit Coordinator within the MIUR project PRIN2009 entitled “The first peopling of the Americas: mitochondrial genome footprints” (cod. 2009P2CNKK_005).

2010-2014. Coordinator of the MIUR project FIRB – Futuro in Ricerca 2008 entitled “The parallel genetic history of humans and domesticated animals” (cod. RBFR08U07M).

2011-2013. Collaborator within the National Geographic Grant 2011: “Horse domestication in the ancient Near East”.

2006-2009. Collaborator within the ACUME 2 European Thematic Network: “Interfacing Sciences, Literature and Humanities”.

2002-2003. Grant Recipient - “Progetto Giovani Ricercatori Bando 2002” (University of Pavia) entitled “Study of Italian populations through phylogenetic and molecular dissection of the mtDNA haplogroup H”.

PUBLICATIONS & BIBLIOMETRIC INDICES (as on Dec 2024)

Author and co-author of 125 original articles in international ISI journals (with 15 first and 18 last co-authorships) and four book chapters (Dec2024). Six of them were selected as cover story articles for the print version of Current Biology, Genome Research and Molecular Biology and Evolution. Some of the results have been reported by press, television and radio broadcasts.

Prof. A. Achilli has contributed (often as main author) to more than 100 communications to national and international meetings, and he has been “Invited Speaker” for several national and international conferences/scientific events and for dissemination events.

Field-Weighted Citation Impact: 1.20

ORCID: [0000-0001-6871-3451](https://orcid.org/0000-0001-6871-3451)

Scopus (Author ID: [6701652869](https://orcid.org/6701652869)). Docs: 132; Citations: 8656; H-index: 52.

ISI-Web of Science (ResearcherID: [I-9236-2012](https://orcid.org/I-9236-2012)): Docs: 139; Total citations: 8141; H-index: 51.

[Google Scholar](https://scholar.google.com/): Total citations: 12349; H-index: 62.

Ranked among the Top Italian Scientists (<http://www.topitalianscientists.org>).

Pavia, Dec 23, 2024

Alessandro Achilli, Ph.D.

