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Decreto Rettore Università di Roma "La Sapienza" n 2755/2018 del 19/11/2018

**BENIAMINO TROMBETTA**  
**Curriculum Vitae**  
**(ai fini della pubblicazione)**

Place Rome

Date 14/12/2018

**Part II – Education**

Type	Year	Institution	Notes (Degree, Experience, etc.)
University graduation	2005	Sapienza University of Rome, Italy	Degree in biology, summa cum laude
PhD	2009	Sapienza University of Rome, Italy	Ph.D. in Genetics and Molecular Biology
Licensure 1	2007	Sapienza University of Rome, Italy	National professional qualification as biologist
Licensure 2	2017		National scientific qualification as associate professor of Genetics (SC 05/I1 – Genetics)

**Part III – Professional experience**

Start	End	Institution	Position
2012	Today	Department of Biology and Biotechnology "C. Darwin", Sapienza University of Rome, Italy	University researcher (SSD BIO/18 – Genetics)
2008	2012	Department of Biology and Biotechnology "C. Darwin", Sapienza University of Rome, Italy	Post-doctoral fellow in the lab of population genetics
2005	2008	Department of Genetics and Molecular Biology "C. Darwin", Sapienza University of Rome, Italy	Ph.D. Student in the lab of population genetics
2003	2005	Department of plant science, Sapienza University of Rome, Italy	Undergraduate internship in the lab of molecular phylogeny

**Part IV – Appointments**

IIIA – Academic Appointments and organizational tasks

Start	End	Institution	Position
2014	today	Department of Biology and Biotechnology "C. Darwin", Sapienza University of Rome, Italy	Head for the dissemination of scientific knowledge
2014	today	Department of Biology and Biotechnology "C. Darwin", Sapienza University of Rome, Italy	Member of the library committee of the Department
2016	today	Department of Biology and Biotechnology "C. Darwin", Sapienza University of Rome, Italy	Faculty member of the Ph.D. course in Genetics and Molecular Biology
2017	today	Department of Biology and Biotechnology "C. Darwin", Sapienza University of Rome, Italy	Supervisor of the Genetic institute.
2017		Department of Biology and Biotechnology "C. Darwin", Sapienza University of Rome, Italy	member of the commission for the admission to the XXXIII cycle of the Ph.D. course in Genetics and Molecular Biology

IIIB – Other Appointments

Start	End	Activity
2012	today	He was the reviewer of several national and international project
2012	today	Referee for several international journals including: American Journal of Human Biology, American Journal of Physical Anthropology, Forensic Science International - Genetics, Human Biology, Global Ecology and Biogeography, Molecular Biology and Evolution, Frontiers in

		Genetics.
2014	today	Member of the editorial board of the journal <i>Frontiers in Genetics</i> (I.F. = 4.151) and of the journal <i>Frontiers in Plant Science</i> (I.F. = 3.677) for the Evolutionary and Population Genetics section
2012	today	Referee for several international journals including: <i>American Journal of Human Biology</i> , <i>American Journal of Physical Anthropology</i> , <i>Forensic Science International - Genetics</i> , <i>Human Biology</i> , <i>Global Ecology and Biogeography</i> , <i>Molecular Biology and Evolution</i> , <i>Frontiers in Genetics</i> , <i>Frontiers in plant science</i> etc.

### Part V – Teaching experience

Year	Institution	Lecture/Course
2012-2017	Sapienza University of Rome	Professor of "Molecular evolution: from the genome to the population" (3CFU) degree in Genetics and Molecular Biology (in Italian)
2016-today	Sapienza University of Rome	Professor of Human Genetics (6 CFU) degree in Genetics and Molecular Biology (international degree - in English).
2016-today	Sapienza University of Rome	Professor of the module of Computational Genomics (3 CFU) for the course of "Genetics and Computational Genomics" degree in Bioinformatics (international degree - in English).
2018-today	Sapienza University of Rome	Professor of Genetics of the conservation (6 CFU) degree in Eco-biology - in Italian.

### Part VI - Society memberships, Awards and Honors

Year	Title
2009-today	Member of the Italian Genetics Association (AGI)

### Part VII - Funding Information [grants as PI-principal investigator or I-investigator]

Year	Title	Program
2008-2010 (I)	The recolonization of Europe from glacial refuges: phylogeography of the human Y chromosome.	PRIN 2007 (prot 20073RH73W_002)
2011-2013 (I)	The impact of glacial refuges in the (re) population of Europe: evidence from the haplogroup R1b1b2 of the human Y chromosome.	PRIN 2009 (prot 2009P2CNKK_004)
2013-2015 (I)	Sequence diversity and evolution of human endogenous retroviral LTRs: The role of ectopic gene conversion.	Funded by the Cenci-Bolognetti foundation (Prot 47/2013).
2013-2014 (I)	Human Y chromosome sequence diversity and the peopling of the Balkans.	University project; University of Rome - Sapienza ( Participation in the C26A13S9AR project)
2014-2015 (I)	NGS of haplogroups of the human Y chromosome involved in trans-Saharan prehistoric migrations.	University project; University of Rome - Sapienza (Participation in the C26A14FM4M project).
2014-2017 (I)	Genetic Prehistory of Man: timing and modalities of geographical expansion using high resolution molecular phylogeny.	PRIN 2012 (prot. 2012JA4BTY_004).
2015-2016 (I)	NGS identification of human informative polymorphisms about the geographic origin of genetic-forensic traces	University project; University of Rome - Sapienza (Participation in the C26A153PCN project).
2018-2020 (I)	Dynamics of intra-chromosomal gene conversion between palindrome arms of the human Y chromosome	Funded by the Cenci-Bolognetti foundation (Prot 47/2013).
2016-2018 (I)	A great human journey: Peopling and human movements in Africa during the last "Green Sahara"	The National geographic grant - The Human Journey GRANT #HJ-139R-17

### Part VII – Research Activities

Keywords	Brief Description
Human population genetics, NGS, human evolution	Analysis of the Y-chromosome genetic variation in human populations using classical and NGS techniques. The study is aimed at inferring evolutionary events occurred in the past in our species.
Y chromosome, STRs,	Analysis of the non-pathological genetic variation of the human genome to solve forensic

forensic genetics	genetic issues.
Genetic polymorphisms, allele frequencies	Study of the role of natural selection in shaping the genetic variability of the human genome.
Ancient DNA, mtDNA, proto-history	Genetic analysis of ancient human populations of central Italy.
Gene conversion, genetic diversity, segmental duplications, LTRs	Studies aimed at clarifying some aspects of the role and the dynamics of inter- and intra-chromosomal gene conversion in the evolution of the human genome.

### Part VIII – Summary of Scientific Achievements

Product type	Number	Data Base	Start	End
Papers [international]	26	Scopus	2004	2019
Hirsch (H) index		12 (Scopus)		
Hirsch (H) index (last 10 years)		10 (Scopus)		
Total Citations		496 (Scopus)		
Total Citations (last 10 years)		341 (Scopus)		
Average citations per product		19.07		
Total Impact factor		139.627 (ISI)		
Average IF per product		5.370		

### Part IX – Dissemination of scientific knowledge

Year	Notes
2011	Trombetta B, Colonna FT. Le tappe della nostra storia. DARWIN, p. 52-57, ISSN: 1824-2448
2014	Trombetta B “Kary Mullis: il ballerino nudo che ha cambiato la scienza in un fine settimana”, seminar for the European Researchers' Week
2016	Cruciani F and Trombetta B "migrazioni e mutazioni genetiche" for the Encyclopedia of Bioethics and Juridical Science published by "Edizioni Scientifiche Italiane". Volume VIII pag. 542-554.

### Part X– Selected Publications

List of the publications selected for the evaluation.

1) D’Atanasio E, Iacovacci G, Pistillo R, Bonito M, Dugoujon JM, Moral P, El-Chennawi F, Melhaoui M, Baali A, Cherkaoui M, Sellitto D, **Trombetta B**, Berti A, Cruciani F. (2019). Rapidly mutating Y-STRs in rapidly expanding populations: Discrimination power of the Yfiler Plus multiplex in northern Africa. *Forensic Sci Int Genet.* Epub 2018 Nov 2. **IF= 5.637 (ISI) – CITAZIONI= 0 (SCOPUS)**

2) Finocchio A, **Trombetta B**, Messina F, D’Atanasio E, Akar N, Loutradis A, Michalodimitrakis EI, Cruciani F, Novelletto A. (2018). A newly resolved phylogeny of Y chromosome Hg J illuminates the processes of Phoenician and Greek colonizations in the Mediterranean. *Scientific Reports* 8: 7465. **IF= 4.122 (ISI) – CITAZIONI= 0 (SCOPUS)**

3) D’Atanasio E\*, **Trombetta B\***, Bonito M, Finocchio A, Di Vito G, Seghizzi M, Romano R, Russo G, Paganotti GM, Watson E, Coppa A, Anagnostou P, Dugoujon JM, Moral P, Sellitto D, Novelletto A, Cruciani F. (2018). The peopling of the last Green Sahara disclosed by high-coverage resequencing of trans-Saharan patrilineages. *Genome Biology* 19:20. **IF= 13.214 (ISI) – CITAZIONI= 3 (SCOPUS)**

**\*These authors contributed equally to this work.**

**Media release:** interview in the MEMEX telecast (<https://www.raisplay.it/video/2018/05/galileo-pt26-2018-raisplay-3fc1fab5-51e5-4fb8-afd1-23980acd1ed8.html>)

**Press release:** (<https://www.uniroma1.it/it/notizia/il-sahara-era-verde-e-popolato-la-storia-dellevoluzione-umana-raccontata-dal-genoma>; [https://www.agi.it/blog-italia/mappe/studio\\_sahara\\_genoma\\_la\\_sapienza-3561407/post/2018-02-28/](https://www.agi.it/blog-italia/mappe/studio_sahara_genoma_la_sapienza-3561407/post/2018-02-28/); <https://www.galileonet.it/2018/02/nel-passato-sahara-verde-popolato-dna/>)

4) Serventi P, Panicucci C, Bodega R, De Fanti S, Sarno S, Fondevila Alvarez M, Brisighelli F, **Trombetta B**, Ferri G, Vazzana A, Delpino C, Gruppioni G, Luiselli D, E. Cilli E. (2018). Iron Age Italic population genetics: the Piceni from Novilara (8th-7<sup>th</sup> century BC). *Ann Hum Biol* 45:34-43. **IF= 1.531 (ISI) – CITAZIONI= 1 (SCOPUS)**

5) **Trombetta B\***, D’Atanasio E, Cruciani F\*. (2017). Patterns of Inter-Chromosomal Gene Conversion on the Male-Specific Region of the Human Y Chromosome. *Front Genet* 8:54. **IF= 4.151 (ISI) – CITAZIONI= 0 (SCOPUS)**

**\*Co-corresponding authors.**

6) **Trombetta B**, Cruciani F. (2017). Y chromosome palindromes and gene conversion. *Human Genetics* 136:605-619. **IF= 3.930 (ISI) – CITAZIONI= 6 (SCOPUS)**

7) Iacovacci G, D'Atanasio E, Marini O, Coppa A, Sellitto D, **Trombetta B**, Berti A, Cruciani F. (2017). Forensic data and microvariant sequence characterization of 27 Y-STR loci analyzed in four Eastern African countries. *Forensic Sci Int Genet* 27:123-131. **IF= 5.637 (ISI) – CITAZIONI= 8 (SCOPUS)**

8) **Trombetta B\***, Fantini G, D'Atanasio E, Sellitto D, Cruciani F\*. (2016). Evidence of extensive non-allelic gene conversion among LTR elements in the human genome. *Scientific Reports* 6: 28710. **IF= 4.259 (ISI) – CITAZIONI= 6 (SCOPUS)**

**\* Co-corresponding authors.**

9) **Trombetta B**, D'Atanasio E, Massaia A, Myres NM, Scozzari R, Cruciani F, Novelletto A. (2015). Regional Differences in the Accumulation of SNPs on the Male-Specific Portion of the Human Y Chromosome Replicate Autosomal Patterns: Implications for Genetic Dating. *PLoS One* 10: e0134646. **IF= 3.057 (ISI) – CITAZIONI= 4 (SCOPUS)**

10) **Trombetta B**, D'Atanasio E, Massaia A, Ippoliti M, Coppa A, Candilio F, Coia V, Russo G, Dugoujon JM, Moral P, Akar N, Sellitto D, Valesini G, Novelletto A, Scozzari R, Cruciani F. (2015). Phylogeographic Refinement and Large Scale Genotyping of Human Y Chromosome Haplogroup E Provide New Insights into the Dispersal of Early Pastoralists in the African Continent. *Genome Biology and Evolution* 7:1940-1950. **IF= 4.098 (ISI) – CITAZIONI= 20 (SCOPUS)**

11) **Trombetta B**, Sellitto D, Scozzari R, Cruciani F. (2014). Inter- and intraspecies phylogenetic analyses reveal extensive X-Y gene conversion in the evolution of gametologous sequences of human sex chromosomes. *Molecular Biology and Evolution* 31:2108-2123. **IF= 9.105 (ISI) – CITAZIONI= 14 (SCOPUS).**

12) Scozzari R, Massaia A, **Trombetta B**, Bellusci G, Myres NM, Novelletto A, Cruciani F. (2014). An unbiased resource of novel SNP markers provides a new chronology for the human Y chromosome and reveals a deep phylogenetic structure in Africa. *Genome Research* 24:535-544. **IF= 14.630 (ISI) – CITAZIONI= 38 (SCOPUS)**  
**Press release:**  
([https://www.repubblica.it/scienze/2014/02/24/news/dna\\_riscrive\\_origine\\_homo\\_sapiens\\_in\\_africa\\_orientale-79527794/](https://www.repubblica.it/scienze/2014/02/24/news/dna_riscrive_origine_homo_sapiens_in_africa_orientale-79527794/);  
<https://it.aleteia.org/2014/02/27/siamo-piu-vecchi-nel-dna-le-tracce-di-una-nuova-storia-delluomo-moderno/2/>;  
<https://www.uniroma1.it/it/node/17426>)

Signature:

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