

## ALLEGATO B

Decreto Rettore Università di Roma "La Sapienza" n 1021/2021 del 12/04/2021  
Procedura valutativa per la copertura di n.1 posto di Professore Universitario di prima fascia per  
il settore concorsuale 05/I1 – Settore scientifico disciplinare BIO/18 presso il Dipartimento di  
Biologia e Biotecnologie "Charles Darwin" – Facoltà di Scienze Matematiche, Fisiche e Naturali –  
codice concorso 2021POR012

## Curriculum Vitae senza dati sensibili per pubblicazione FULVIO CRUCIANI

Rome, April 26, 2021

### Part I – General Information

Full Name	Fulvio Cruciani
Date of Birth	
Place of Birth	
Citizenship	
Permanent Address	
Mobile Phone Number	
E-mail	
Spoken Languages	

### Part II – Education

Type	Year	Institution	Notes
University graduation	1991	Sapienza University of Rome	<i>Biological Sciences, 110/110 with honors</i>
Pre-doctorate training	1993	Sapienza University of Rome	<i>"Tirocinio" post-lauream (Genetics)</i>
PhD	1996	Sapienza University of Rome	<i>PhD in Genetics and Molecular Biology</i>
Specialty	1999	Sapienza University of Rome	<i>"Scuola di specializzazione" in Applied Genetics, 70/70 with honors</i>

### Part III – Appointments

#### IIIa – Academic Appointments

Start	End	Institution	Position
2015	present	Sapienza University of Rome	Associate Professor of Genetics
2005	2014	Sapienza University of Rome	Assistant Professor of Genetics (Ricercatore)
2000	2004	Sapienza University of Rome	Post-doctoral fellow ("Assegnista di ricerca")
2000	2002	University of Urbino, Italy	Lecturer ("Professore a contratto")
2000 Nov	2001 Feb	Department of Genetics, Stanford University, CA	Fulbright Research Fellow
6/10/1999	16/10/1999	Department of Biochemistry Oxford University, UK	Visiting Scientist
1991	1999	Sapienza University of Rome	Research fellowships funded by Sapienza University of Rome, CNR, Telethon

### IIIb – Other Appointments

Start	End	Institution	Position
2018	present	Istituto Pasteur Fondazione Cenci Bolognetti	Research Associate
2016	present	Istituto di Biologia e Patologia Molecolari / CNR	Research Associate
2012	2014	Istituto di Biologia e Patologia Molecolari / CNR	Research Associate

## Part IV – Teaching and Mentoring experience

### IVa – Teaching at Sapienza University of Rome

Years	Course/lectures
AA 2020/21 to date	“Genetics of infertility” and “Nutrigenetics” lectures (second level Master in “Biologia della nutrizione nella riproduzione umana”, 6 h)
AA 2016/17 to date	Genetica di popolazioni (Laurea triennale in Scienze Biologiche, 6 CFU)
AA 2012/13 to date	Genetica forense (Laurea triennale in Scienze Biologiche, 6 CFU. Since 2020, 3 CFUs have been temporarily assigned to G. Iacovacci - Banca Dati Nazionale del DNA)
AA 2012/13 to date	Genetica umana (Laurea Magistrale in Genetica e Biologia Molecolare, 6 CFU)
AA 2009/10 – 2011/12	Metodologie genetico molecolari nell'uomo (Laurea Magistrale in Genetica e Biologia Molecolare, 2 or 3 CFU).
AA 2011/12 – 2012/13	Evoluzione molecolare (Laurea Magistrale in Genetica e Biologia Molecolare, 3 CFU)
AA 2009/10	Biodiversità e genomica delle popolazioni (Laurea Magistrale in Biotecnologie Industriali ed Ambientali, 6 CFU);
Since AA 2008/09	Teaching Professor for the PhD Program in Genetics and Molecular Biology
AA 2005/06 – 2008/09	Genetica di popolazioni ed evoluzione molecolare (Laurea specialistica in Biologia Evoluzionistica, 3 CFU)
AA 2005/06 – 2008/09	Genetica ed evoluzione di popolazioni (Laurea Specialistica in Biotecnologie Industriali ed Ambientali, 3 CFU).
AA 2005/06 – 2008/09	Metodi e sistemi in genetica (Laurea Specialistica in Genetica e Biologia Molecolare, modulo 1,5 CFU)

### IVb – Teaching at University of Urbino

Years	Lecture/Course
2001/02 and 2002/03	Genetica e Microbiologia (modulo Genetica; Facoltà di Scienze Ambientali, modulo 3 CFU)
2000	Genetica e Microbiologia (Facoltà di Scienze Ambientali, invited lecturer 10h)

### IVc – Mentoring at Sapienza University of Rome

2005-present	Thesis supervisor for more than 40 students
2010-present	Thesis Supervisor for 5 PhD students

## Part V - Society memberships, Awards and Honors, Academic Activities and Other Activities

### Va – Society memberships

Since 2008	Member of the "Associazione Genetica Italiana"
Since 2010	Member of the "European Society of Human Genetics"

### Vb – Awards and Honors

Since 2020	Listed among the “Top Italian Scientists” (Macroarea Biomedical Sciences, Genetics)
2000	Winner of the competition for the award of a three-month Fulbright scholarship in the United States
1996	1st place (winner of an annual scholarship) in the CNR competition for the assignment of 6 annual scholarships (CNR announcement n. 201.12.79)
1992	1st place (winner of a three-year scholarship) in the competition for the admission to the School of Specialization in Applied Genetics (Department of Genetics and Molecular Biology, Sapienza University of Rome)

### Vc – Academic Activities

Since 2017	Director of the PhD program in Genetics and Molecular Biology, Sapienza University of Rome
2021, April	Candidate as member of the “Scientific Research Committee” of the Sapienza University of Rome
Since 2020	Member of the Scientific committee for the second level Master in “Biologia della nutrizione per la riproduzione umana”, Sapienza University of Rome
Since 2016	Member of the "Resources Committee" of the Department of Biology and Biotechnology, Sapienza University of Rome
2013-2014	Member of the “Giunta di Facoltà”, Facoltà di Scienze Matematiche Fisiche e Naturali, Sapienza University of Rome
2012-2014	Member of the “Giunta di Dipartimento”, Dipartimento di Biologia e Biotecnologie, Sapienza University of Rome

### Vd – Invited Lectures

<i>Year</i>	<i>Title</i>	<i>Conference</i>
2019	Il cromosoma Y nelle indagini genetico forensi	Uso della prova genetica. Profili critici in sede penale e civile. Rome , Italy
2009	Human Y chromosome haplogroup R1b1a: a paternal genetic record of early-mid Holocene trans-Saharan connections	4th International Conference on DNA polymorphisms in human Populations, Rome, Italy
2007	The berber and the Berbers:The Y chromosome perspective	International Conference “The origin of man, language, and languages”

### Ve – Activities as Journal Editor

Since 2016	Associate Editor for “Frontiers in Genetics” and “Frontiers in Ecology and Evolution” (Evolutionary and Population Genetics section)
Since 2020	Section Editor for “Genes” (Population and Evolutionary Genetics and Genomics section)
Since 2021	Editorial Board Member for “Forensic Sciences”

## **Vf – Activities as Referee**

- Member of the “European Science Foundation” College of Expert Reviewers (since 2021)
- Referee for international grant projects: ESF, Leakey Foundation-USA, KU Leuven -Belgium, French National Research Agency, Czech Science Foundation, Estonian Research Council
- Referee for Italian and local research Grant: FIRB (2010-2011), Piscopia, Fondazione CRP, Regione Sardegna, Univ. Tor Vergata.
- Referee for the Italian National Agency for the Evaluation of Universities and Research Institutes (ANVUR) (VQR 2004-2010 and 2011-2014)
- Reviewer for the following international journals: Nature Communications, Proceedings of the National Academy of Sciences USA, American Journal of Human Genetics, Genome Research, Molecular Biology and Evolution, Genome Biology, Human Molecular Genetics, Human Mutation, Proceedings of the Royal Society, Forensic Science International Genetics, American Journal of Physical Anthropology, American Journal of Human Biology, Animal Genetics, Annals of Human Genetics, BMC Evolutionary Biology, BMC Technical notes, European Journal of Human Genetics, Journal of Human Genetics, Human Biology, Plos ONE, Journal of World Prehistory.

## **Vg – Third Mission / Dissemination**

FC engagement in scientific dissemination is tightly linked to his research activity in genetics:

- Within the framework agreement between Sapienza and Carabinieri "Reparto Investigazioni Scientifiche" (RIS), he is signatory of an executive agreement with the RIS biology section for studies and interventions, aimed to implement security on the territory.
- He is promoter of a framework agreement between Sapienza University and the Eritrean Institute of Technology for scientific dissemination and exchange of researchers.
- He has given comments and interviews for Nature, The Scientist, Panorama, Agenzia ANSA, La Stampa, Corriere della sera.
- Since 2021, he is teacher of "forensic genetics" and "genetics of taste" as part of the Sapienza University PCTO program "pills of science" addressed to secondary school students (20 hours).
- He has held lectures for primary and secondary school students.
- He is author of the chapter "Population Genetics" of the university textbook "Genetica" (CEA - Zanichelli 2014) and of the entry "Mutation and migration" of the VIII Volume of the Encyclopedia of Bioethics and Legal Science.
- He carried out activities of genetic counseling and advice on issues related to genealogy and ancestry.
- He has carried out scientific consultation for the writing of the novel "The patriarch rising" by Aaron Malavolti.
- The contents of the publications on Science (2005, 2006) and Am J Hum Genet (2011) have been widely disseminated by the international non-specialized press. The contents of publications in Genome Research (2014) and Genome Biology (2018) have attracted the interest of numerous media (Repubblica.it, Le Scienze.it, Radio RAI science, etc.). The publication in Forensic Science International Genetics (2020) was the subject of a dissemination article on the magazine Panorama.

## Part VI - Funding Information

### Via – Grants as Principal Investigator (PI) or Research Unit PI (RPI)

Year	Title	Funding Agency	Grant value
2021 (PI)	Analisi genetica del DNA fetale circolante nel sangue materno: sviluppo di un test di paternità non invasivo ad elevata specificità	LazioInnova (Regione Lazio)	149,940 €
2020 (PI)	Whole-genome sequencing of the Fulbe ethnic group, a key population to understand the evolutionary history of Africa	Sapienza University of Rome	72,000 €
2020 (co-PI)	A window on the Etruscan world: kinship and social organisation of an Etruscan burial site inferred with an archaeogenetic approach	Gerda Henkel Foundation	11,500 €
2019 (PI)	Conseguenze della frammentazione etnica sul potere identificativo di marcatori genetico-forensi in popolazioni dell'Africa sub-Sahariana	Sapienza University of Rome	14,500 €
2018 (PI)	Dynamics of intra-chromosomal gene conversion between palindrome arms of the human Y chromosome	Fondazione Pasteur Cenci-Bolognetti	60,000 €
2018 (PI)	Origine genetica delle odierne popolazioni caraibiche: analisi della regione maschio-specifica del cromosoma Y umano mediante next generation sequencing	Sapienza University of Rome	13,000 €
2017 (PI)	Origine e struttura genetica delle popolazioni nomadi dell'Africa sub-Sahariana: analisi mediante next generation sequencing del cromosoma Y umano	Sapienza University of Rome	13,000 €
2017 (PI)	A great human journey: Peopling and human movements in Africa during the last Green Sahara	National Geographic	30,000 \$
2016 (PI)	Analisi del potere di discriminazione genetico-forense di microsatelli ipermutabili del cromosoma Y in società patrilocali dell'Africa orientale	Sapienza University of Rome	31,600 €
2015 (PI)	Identificazione mediante next generation sequencing di polimorfismi umani informativi sull'origine geografica di reperti genetico-forensi	Sapienza University of Rome	10,000 €
2014 (PI)	Sequenziamento di nuova generazione di aplogruppi del cromosoma Y umano coinvolti in migrazioni preistoriche trans-Sahariane.	Sapienza University of Rome	10,000 €
2013 (PI)	Sequence diversity and evolution of human endogenous retroviral LTRs: the role of ectopic gene conversion	Fondazione Pasteur Cenci-Bolognetti	60,000 €
2013 (RPI)	Human genetic prehistory: times and modes of geographic and demographic expansions by using highly resolved (calibrated) molecular phylogenies	MIUR (PRIN 2012)	78,000 €
2013 (PI)	Human Y chromosome sequence diversity and the peopling of the Balkans.	Sapienza University of Rome	10,000 €
2012 (PI)	Coalescence age estimate of major human Y chromosome haplogroups in eastern Africa: a next-generation sequencing approach.	Sapienza University of Rome	32,000 €
2010 (RPI)	L'impatto dei rifugi glaciali nel (ri) popolamento dell'Europa: evidenze dall'aplogruppo R1b1b2 del cromosoma Y umano.	MIUR (PRIN 2009)	53,000 €
2009 (PI)	Filogeografia dell'aplogruppo A del cromosoma Y umano: i "primi passi" di <i>Homo sapiens</i> nel continente Africano.	AST – Ateneo Federato Scienza e Tecnica	8,000 €
2008 (PI)	Ruolo della conversione genica inter- cromosomica X-Y nella storia evolutiva dei cromosomi sessuali umani.	AST - Ateneo Federato Scienza e Tecnica	18,900 €

## Vib – Grants as Investigator

1. "Arquitectura molecular y variación de regiones funcionales y no-funcionales del genoma humano: aplicaciones epidemiológicas y poblacionales en el Mediterráneo" (Progetto del Ministerio de Ciencia e Innovación , Spagna, 1/2009-2/2012)
2. "La ricolonizzazione dell'Europa dai rifugi glaciali: filogeografia del cromosoma Y umano " (PRIN 2007)
3. "Un albero filogenetico ad elevata risoluzione del cromosoma Y umano come valido strumento per studi di associazione con patologie complesse:dissezione molecolare degli aplogruppi A-E" (PRIN 2005)
4. "Le radici genetiche dell'Italia moderna: storia e geografia dell'aplogruppo R del cromosoma Y" (PRIN 2003)
5. "Origine e dispersione geografica dell'aplogruppo E del cromosoma Y umano" (PRIN 2002)
6. " Struttura genetica delle popolazioni europee e mediterranee. Mutazioni, aplotipi ancestrali e meccanismi di selezione" (PRIN 1999)
7. "Studi genetici di popolazioni Europee" (PRIN 1997)
8. "Variabilità' genetica ed evoluzione umana:approccio molecolare e approccio quantitativo" (PRIN 1996)
9. "Variabilità' genetica ed evoluzione umana:approccio molecolare e approccio quantitativo" (PRIN 1995)
10. "Genetica evoluzionistica" (PRIN 1994)
11. "Conversione genica tra i cromosomi sessuali umani X ed Y e riparazione delle rotture del DNA" (Progetti di Ricerca di Università 2009, Sapienza Università di Roma)
12. "Genealogia del cromosoma Y e diversità delle popolazioni umane: un'analisi molecolare ad elevata risoluzione della regione MSY" (Grandi Progetti Ateneo 2006, Sapienza Università di Roma)
13. "Polimorfismi del cromosoma Y ed evoluzione delle popolazioni umane" (Grandi Progetti Ateneo 2003, Sapienza Università di Roma)
14. "Distribuzione della ricombinazione meiotica e grado di linkage disequilibrium: analisi delle variazioni del DNA nel gene per l' adenosin deaminasi in popolazioni umane"(Grandi Progetti Ateneo 2000, Sapienza Università di Roma)
15. La sordità neurosensoriale di tipo familiare. Determinazione del ruolo del background mitocondriale nell'espressione della patologia (Grandi Progetti Ateneo 1998, Sapienza Università di Roma)
16. La neuropatia ottica di Leber. Una analisi filogenetica degli aplotipi del DNA mitocondriale di pazienti e di controlli (Grandi Progetti Ateneo 1996, Sapienza Università di Roma)
17. Genetica della sindrome X- fragile: un approccio molecolare (Grandi Progetti Ateneo 1995, Sapienza Università di Roma)
18. "Natural sequence variation of mtDNA and its role in disease/phenotype expression: complete sequence analysis of mtDNAs representative of all haplogroups observed in Europe" (Telethon 1999)
19. "Determination of the role played by mtDNA backgrounds on the clinical parameters of families affected by Leber Hereditary Optic Neuropathy (Telethon 1996)
20. "Origin, frequency and pathogenicity of the mitochondrial DNA mutations associated with Leber's hereditary optic neuropathy in Italian patients and controls. A phylogenetic approach" (Telethon 1993)
21. "Ricostruzione biologica di popolazioni antiche dalla struttura genetica delle popolazioni attuali. Minoranze linguistiche e isolati genetici del centro e del nord-est dell'Italia" (CNR, Progetto Finalizzato Beni Culturali 1997)
22. "Disorders of Motor and Cardiorespiratory Control - Biological Clock" (Agenzia Spaziale Italiana 2006)
23. "L'orologio biologico circadiano:analisi degli effetti dell'esposizione prolungata a condizioni desincronizzanti e caratterizzazione di polimorfismi nei geni orologio in popolazioni umane di diversa origine" (Agenzia Spaziale Italiana 2001).

## Part VII – Research Activities

### VIIa Research lines

My group is especially interested in studying different aspects of the human genetic diversity and evolution. Our research spans over three major areas: archaeogenetics, sex chromosome molecular evolution and forensic genetics.

- *Research line 1: Archaeogenetics.* This is the oldest research line of my group, which has been progressing in parallel with the improvement of technologies and statistical methods for the analysis of the molecular diversity. Most of the studies were based on the analysis of the Y chromosome variability, with specific reference to issues related to the origins of our species and to migrations fueled by the cultural evolution and climate changes in the African continent. Among the most relevant results, there are the redefinition of the root of the Y chromosome phylogeny (Cruciani et al. 2011) and new evidences for the peopling of the “Green Sahara” during the last humid phase, from 12 to 5k years ago (D’Atanasio et al. 2018). Recently, we have started to analyze high coverage full genomes to unveil past migrations related to the spread of the pastoralism in Africa and in the Middle East.

- *Research line 2: Molecular evolution of sex chromosomes.* This research line is mainly focused on the role of ectopic gene conversion in the evolution of sex chromosomes. In this decade, we have demonstrated that X-Y ectopic gene conversion is a pervasive phenomenon in the male germline with a role in sex chromosome integrity maintenance (Trombetta et al. 2010, 2014). Studies are underway to investigate the impact of intra-chromosomal gene conversion on the diversity of Y chromosome palindromic sequences.

- *Research line 3: Forensic genetics.* This is the youngest research line of my group, aimed to evaluate how population structure and demography affect the discrimination power of rapidly mutating Y-STR used for identification purposes in forensic caseworks. Together with the *Reparto di Investigazioni Scientifiche dei Carabinieri*, we are also currently exploring new multivariate statistical approaches for the DNA-based inference of biogeographical ancestry, a relevant investigative tool to support law enforcement agencies when no suspects are available for direct comparison and no matches occur through DNA database search (Alladio et al. 2020).

### VIIb Research group

My research group is currently composed by a researcher (E. D’Atanasio, IBPM/CNR), a post-doc (Dr M. Bonito, funded by Fondazione Buzzati Traverso), two PhD students (Dr. C. Della Rocca and Dr. M. Hajiesmaeil, funded by Sapienza University of Rome), a predoctoral fellow (Dr B. Bonucci, funded by Istituto Pasteur), a technician (D. Sellitto, IBPM/CNR) and a variable number of master students.

### VIIc Current national and international research collaborations (FC involved as PI or co-PI, selection)

Year	Researcher and Institution	Project	Research Status
Since 2021	Dr. Francesca Spinella, Eurofins Genoma Group, Rome, Italy	Development of a new method for non-invasive paternity testing from cell-free fetal circulating DNA	Grant assigned (LazioInnova), research planned, experimental work to be started
Since 2021	Prof. Manfred Kayser and Dr. Arwin Ralf, Dpt of Genetic Identification, Erasmus MC University, Rotterdam, The Netherlands	Discrimination power of novel rapidly mutating Y-STRs in endogamous African populations	Experimental work just started
Since 2020	Prof. Hamid Galehdari, Dpt of Genetics, Shahid Chamran University, Ahwaz, Iran	A genomic perspective on the origin of the nomadic herders from Iran	Sample collection completed, whole genomes under sequencing
Since 2019	Prof. Sibte Hadi, Univ. of Central Lancashire, Preston, UK	Rapidly mutating Y-STR diversity in the Sahelian belt	Completed, Manuscript in preparation

Since 2018	Prof. Andrea Novelletto, Dpt. of Biology, Università Tor Vergata, Rome, Italy	Dynamics of intra-chromosomal gene conversion between palindrome arms of the human Y chromosome. A.N is also involved in the “LazioInnova” Project listed above	Manuscript submitted (eLife Journal)
Since 2017	Dr Andrea Berti, Dr Filippo Barni, Reparto Investigazioni Scientifiche dei Carabinieri, Rome, Italy	Several ongoing research projects on forensic genetics under the “framework agreement” between Sapienza University and RIS. A.B. and F.B. are also involved in the collaborations with Univ. Of Rotterdam and Univ. Of Central Lancashire listed above	Two manuscripts under review; other projects at various stages of advancement

## Part VIII – Summary of Scientific Achievements\*

\* Details about the bibliometric analyses are available in the attached xls file

### VIIIa Number of Publications, total

Product type	Number	Data Base	Start	End
Papers [international, ISI]	67	Scopus	1994	2021
Papers as first/co-first last/corresponding author	32	Scopus	1994	2021
Book chapters [scientific]	4	-	2000	2021
Books [teaching]	1	-	2014	2021

### VIIIb Number of Publications, last 15 years

Product type	Number	Data Base	Start	End
Papers [international, ISI] 2006-2021	37	Scopus	2006	2021
Papers as first/co-first last/corresponding author	28	Scopus	2006	2021
Book chapters [scientific]	2	-	2006	2021
Books [teaching]	1	-	2006	2021

### VIIIc bibliometric indicators, total

Total impact factor	501.7
Average impact Factor	7.5
Total impact factor as first, co-first, last or corresponding author	189.3
Total citations	5255 (Scopus); 8631 (Google Scholar)
Total citations as first, co-first, last or corresponding author	1105 (Scopus)
Average citations per article	78 (Scopus); 128 (Google Scholar)
Hirsch (H) index	32 (Scopus); 36 (Google Scholar)
Normalized H index (H index divided by the academic seniority)	1.14 (Scopus); 1.29 (Google Scholar)
Abilitazione Scientifica Nazionale (ASN 2016)	Full Professor of Genetics qualification; Qualification as “commissario” BIO/18
VQR evaluation (2004-2010 and 2011-2014)	All articles evaluated as excellent

### VIII d bibliometric indicators, last 15 years (2006-2021)

Impact factor 2006-2021	228.7
Average impact Factor 2006-2021	6.2
Impact factor 2006-2021 as first, co-first, last or corresp. author	160.1
Citations to articles published in 2006-2021	1072 (Scopus)
Total citations as first, co-first, last or corresponding author (articles published in 2006-2021)	667 (Scopus)
Average citations per article 2006-2021	29.0 (Scopus)
Hirsch (H) index referred to articles published in 2006-2021	18 (Scopus)
Normalized H index (H index divided 15 years)	1.2 (Scopus)

## Part IX–Publications

### A) Articles (International Journals)

\* = corresponding author

- 1) BONITO M, D'ATANASIO E, TROMBETTA B, CANNONE F, BERTI A, **CRUCIANI F\*** (2021) Identification and molecular characterisation of an unusually short allele at the SE33 (ACTBP2) locus resulting in a putative tri-allelic pattern at a flanking marker. *Forensic Sci Int Genet: in press (accepted 25/4/2021)*
- 2) RAVASINI F, D'ATANASIO E, BONITO M, BONUCCI B, DELLA ROCCA C, BERTI A, TROMBETTA B, **CRUCIANI F\*** (2021) Sequence read depth analysis of a monophyletic cluster of Y chromosomes characterized by structural rearrangements in the AZFc region resulting in DYS448 deletion and DYF387S1 duplication. *Front Genet* 12:669405
- 3) D'ATANASIO E, TRIONFETTI F, BONITO M, SELBITTO D, COPPA A, BERTI A, TROMBETTA B **CRUCIANI F\*** (2020) Y haplogroup diversity of the Dominican Republic: reconstructing the effect of the European colonisation and the trans-Atlantic slave trades. *Genome Biol Evol* 12: 1579-1590
- 4) DELLA ROCCA C, CANNONE F, D'ATANASIO E, BONITO M, ANAGNOSTOU P, RUSSO G, BARNI F, ALLADIO E, DESTRO-BISOL G, TROMBETTA B, BERTI A, **CRUCIANI F\*** (2020) Ethnic fragmentation and degree of urbanization strongly affect the discrimination power of Y-STR haplotypes in central Sahel. *Forensic Sci Int Genet* 49:102374
- 5) ALLADIO E, DELLA ROCCA C, BARNI F, DUGOUJON JM, GAROFANO P, SEMINO O, BERTI A, NOVELLETTO A, VINCENTI M, **CRUCIANI F** (2020) A multivariate statistical approach for the estimation of the ethnic origin of unknown genetic profiles in forensic genetics. *Forensic Sci Int Genet* 45:102209
- 6) GRUGNI V, RAVEANE A, ONGARO L, BATTAGLIA V, TROMBETTA B, COLOMBO G, CAPODIFERRO MR, OLIVIERI A, ACHILLI A, PEREGO UA, MOTTA J, TRIBALDOS M, WOODWARD SR, FERRETTI L, **CRUCIANI F**, TORRONI A, SEMINO O (2019) Analysis of the human Y-chromosome haplogroup Q characterizes ancient population movements in Eurasia and the Americas. *BMC Biol* 17:3
- 7) D'ATANASIO E, IACOVACCI G, PISTILLO R, BONITO M, DUGOUJON JM, MORAL P, EL-CHENNAWI F, MELHAOUI M, BAALI A, CHERKAOUI M, SELBITTO 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* 38:185-194
- 8) D'ATANASIO E, BONITO M, IACOVACCI G, BERTI A, TROMBETTA B, **CRUCIANI F\*** (2019) Identification and molecular characterisation of an AMEL-X null allele due to an Alu insertion. *Forensic Sci Int Genet* 38: e1-e4
- 9) FINOCCHIO A, TROMBETTA B, MESSINA F, D'ATANASIO E, AKAR N, LOUTRADIS A, MICHALODIMITRAKIS EI, **CRUCIANI F**, NOVELLETTO A (2018) A finely resolved phylogeny of Y chromosome Hg J illuminates the processes of Phoenician and Greek colonizations in the Mediterranean. *Sci Rep* 8:7465
- 10) 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, SELBITTO D, NOVELLETTO A, **CRUCIANI F\*** (2018) The peopling of the last Green Sahara revealed by high-coverage resequencing of trans-Saharan patrilineages. *Genome Biology* 19:20
- 11) 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
- 12) TROMBETTA B, **CRUCIANI F\*** (2017) Y chromosome palindromes and gene conversion. *Hum Genet* 136:605-619.
- 13) IACOVACCI G, D'ATANASIO E, MARINI E, COPPA A, SELBITTO 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 Genetics* 27:123-131
- 14) TROMBETTA B, FANTINI G, D'ATANASIO E, SELBITTO D, **CRUCIANI F\*** (2016) Evidence of extensive non-allelic gene conversion among LTR elements in the human genome. *Sci Rep* 6:28710
- 15) GANDINI F, ACHILLI A, PALA M, BODNER M, BRANDINI S, HUBER G, EGYED B, FERRETTI L, GÓMEZ-CARBALLA A, SALAS A, SCOZZARI R, **CRUCIANI F**, COPPA A, PARSON W, SEMINO O, SOARES P, TORRONI A, RICHARDS M, OLIVIERI A (2016) Mapping human dispersals into the Horn of Africa from Arabian Ice Age refugia using mitogenomes. *Sci Rep* 6:25472

IF = 4,8

- 16) RAPONE C, D'ATANASIO E, AGOSTINO A, MARIANO M, PAPALUCA MT, **CRUCIANI F\***, BERTI A (2016) Forensic genetic value of a 27 Y-STR loci multiplex (Yfiler® Plus kit) in an Italian population sample. *Forensic Sci Int Genet* 21:e1-5
- 17) 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.
- 18) TROMBETTA B, D'ATANASIO E, MASSAIA A, IPPOLITI M, COPPA A, CANDILIO F, COIA V, RUSSO G, DUGOUJON JM, MORAL P, AKAR N, SELBITTO 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 Biol Evol* 7:1940-1950
- 19) MOSCHETTI R, CELAURO E, **CRUCIANI F**, CAIZZI R, DIMITRI P (2014) On the evolution of Yeti, a *Drosophila melanogaster* heterochromatin gene. *Plos One* 9:e0113010
- 20) TROMBETTA B, SELBITTO D, SCOZZARI R, **CRUCIANI F\*** (2014) Inter- and intra-species phylogenetic analyses reveal extensive X-Y gene conversion in the evolution of gametologous sequences of human sex chromosomes. *Mol Biol Evol* 31:2108-2123
- 21) 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 Res* 24:535-544
- 22) SCOZZARI R, MASSAIA A, D'ATANASIO E, MYRES NM, PEREGO UA, TROMBETTA B, **CRUCIANI F\*** (2012) Molecular dissection of the basal clades in the human Y chromosome phylogenetic tree. *PLoS ONE* 7:e49170
- 23) **CRUCIANI F\***, TROMBETTA B, MASSAIA A, DESTRO-BISOL G, SELBITTO D, SCOZZARI R (2011) A revised root for the human Y chromosomal phylogenetic tree: The origin of patrilineal diversity in Africa. *Am J Hum Genet* 88:814-818
- 24) **CRUCIANI F**, TROMBETTA B, ANTONELLI C, PASCONI R, VALESINI G, SCALZI V, VONA G, MELEGH B, ZAGRADISNIK B, ASSUM G, EFREMOV GD, SELBITTO D, SCOZZARI R (2011) Strong intra- and inter-continental differentiation revealed by Y chromosome SNPs M269, U106 and U152. *Forensic Sci Int Genet* 5:e49-52.
- 25) TROMBETTA B, **CRUCIANI F**, SELBITTO D, SCOZZARI R (2011) A new topology of the human Y chromosome haplogroup E1b1 (E-P2) revealed through the use of newly characterized binary polymorphisms. *Plos One* 6:e16073
- 26) **CRUCIANI F**, TROMBETTA B, MACAULAY V, SCOZZARI R (2010) About the X-to-Y gene conversion rate. *Am J Hum Genet* 86: 495-497
- 27) TROMBETTA B, **CRUCIANI F**, UNDERHILL PA, SELBITTO D, SCOZZARI R (2010) Footprints of X-to-Y gene conversion in recent human evolution. *Mol Biol Evol* 27: 714-725
- 28) **CRUCIANI F**, TROMBETTA B, SELBITTO D, MASSAIA A, DESTRO-BISOL G, WATSON E, BERAUD COLOMB E, DUGOUJON JM, MORAL P, SCOZZARI R (2010) Chadic languages and Y haplogroups: Reply to Lancaster. *Eur J Hum Genet* 18:1186-1187
- 29) **CRUCIANI F**, TROMBETTA B, SELBITTO D, MASSAIA A, DESTRO-BISOL G, WATSON E, BERAUD COLOMB E, DUGOUJON JM, MORAL P, SCOZZARI R (2010) Human Y chromosome haplogroup R-V88: a paternal genetic record of early mid Holocene trans-Saharan connections and the spread of Chadic languages. *Eur J Hum Genet* 18:800-807
- 30) COIA V, BRISIGHELLI F, DONATI F, PASCALI V, BOSCHI I, LUISELLI D, BATTAGGIA C, BATINI C, TAGLIOLI L, **CRUCIANI F**, PAOLI G, CAPELLI C, SPEDINI G, DESTRO-BISOL G (2009) A multi-perspective view of genetic variation in Cameroon. *Am J Phys Anthropol* 140: 454-464
- 31) **CRUCIANI F**, TROMBETTA B, NOVELLETTO A, SCOZZARI R. (2008) Recurrent mutation in SNPs within Y chromosome E3b (E-M215) haplogroup: A rebuttal. *Am J Hum Biol* 20: 614-616
- 32) HENN BM, GIGNOUX C, LIN AA, OEFNER PJ, SHEN P, SCOZZARI R, **CRUCIANI F**, TISHKOFF SA, MOUNTAIN JL AND UNDERHILL PA (2008) Y-chromosomal Evidence of a Pastoralist Migration through Tanzania to Southern Africa. *Proc Natl Acad Sci USA* 105: 10693-10698
- 33) **CRUCIANI F**, TROMBETTA B, LABUDA D, MODIANO D, TORRONI A, COSTA R, SCOZZARI R (2008) Genetic diversity patterns at the human clock gene period 2 are suggestive of population-specific positive selection. *Eur J Hum Genet* 16:1526-1534
- 34) **CRUCIANI F**, LA FRATTA R, TROMBETTA B, SANTOLAMAZZA P, SELBITTO D, COLOMB EB, DUGOUJON JM, CRIVELLARO F, BENINCASA T, PASCONI R, MORAL P, WATSON E, MELEGH

- B, BARBUJANI G, FUSELLI S, VONA G, ZAGRADISNIK B, ASSUM G, BRDICKA R, KOZLOV AI, EFREMOV GD, COPPA A, NOVELLETTO A, SCOZZARI R (2007) Tracing past human male movements in northern/eastern Africa and western Eurasia: new clues from Y-chromosomal haplogroups E-M78 and J-M12. *Mol Biol Evol* 24: 1300-1311
- 35) KING TE, PARKIN EJ, SWINFIELD G, **CRUCIANI F**, SCOZZARI R, ROSA A, LIM SK, XUE Y, TYLER-SMITH C, JOBLING MA (2007) Africans in Yorkshire? The deepest-rooting clade of the Y phylogeny within an English genealogy. *Eur J Hum Genet* 12: 288-293
- 36) OLIVIERI A, ACHILLI A, PALA M, BATTAGLIA V, FORNARINO S, AL-ZAHERY N, SCOZZARI R, **CRUCIANI F**, BEHAR DM, DUGOUJON J-M, COUDRAY C, SANTACHIARA-BENERECETTI AS, SEMINO O, BANDELT H-J, TORRONI A (2006) The mtDNA legacy of the Levantine early Upper Palaeolithic in Africa. *Science* 314: 1767-1770
- 37) **CRUCIANI F**, LA FRATTA R, UNDERHILL PA, TORRONI A, SCOZZARI R (2006) Molecular dissection of the Y chromosome haplogroup E-M78 (E3b1a): a posteriori evaluation of a microsatellite-network-based approach through six new biallelic markers. *Hum Mutat* 27: 831-832
- 38) COIA V, DESTRO-BISOL G, VERGINELLI F, BATTAGLIA C, BOSCHI I, **CRUCIANI F**, SPEDINI G, COMAS D, CALAFELL F (2005) mtDNA variation in North Cameroon: lack of Asian lineages and implications for back migration from Asia to sub-Saharan Africa. *Am J Phys Anthropol.* 128: 678-681
- 39) MACAULAY V, HILL C, ACHILLI A, RENGO C, CLARKE D, MEEHAN W, BLACKBURN J, SEMINO O, SCOZZARI R, **CRUCIANI F**, TAHA A, SHAARI NK, RAJA JM, ISMAIL P, ZAINUDDIN Z, GOODWIN W, BULBECK D, BANDELT H-J, OPPENHEIMER S, TORRONI A, RICHARDS M (2005) Tracing modern human origins. *Science* 309: 1995-1996
- 40) MACAULAY V, HILL C, ACHILLI A, RENGO C, CLARKE D, MEEHAN W, BLACKBURN J, SEMINO O, SCOZZARI R, **CRUCIANI F**, TAHA A, SHAARI NK, RAJA JM, ISMAIL P, ZAINUDDIN Z, GOODWIN W, BULBECK D, BANDELT HJ, OPPENHEIMER S, TORRONI A, RICHARDS M (2005) Single, rapid coastal settlement of Asia revealed by analysis of complete mitochondrial genomes. *Science* 308: 1034-1036
- 41) FUSELLI S, DUPANLOUP I, FRIGATO E, **CRUCIANI F**, SCOZZARI R, MORAL P, SISTONEN J, SAJANTILA A, BARBUJANI G (2004) Molecular diversity at the CYP2D6 locus in the Mediterranean region. *Eur J Hum Genet* 12: 916-924
- 42) ZHIVOTOVSKY LA, UNDERHILL PA, CINNOGLU C, KAYSER M, MORAR B, KIVISILD T, SCOZZARI R, **CRUCIANI F**, DESTRO-BISOL G, SPEDINI G, CHAMBERS GK, HERRERA RJ, YONG KK, GRESHAM D, TOURNEV I, FELDMAN MW, KALAYDJIEVA L (2004) The effective mutation rate at Y chromosome short tandem repeats, with application to human population-divergence time. *Am J Hum Genet* 74: 50-61
- 43) **CRUCIANI F**, LA FRATTA R, SANTOLAMAZZA P, SELITTO D, PASCONE R, MORAL P, WATSON E, GUIDA V, BERAUD COLOMB E, ZAHAROVA B, LAVINHA J, VONA G, AMAN R, CALÌ F, AKAR N, RICHARDS M, TORRONI A, NOVELLETTO A, SCOZZARI R (2004) Phylogeographic analysis of haplogroup E3b (E-M215) Y chromosomes reveals multiple migratory events within and out of Africa. *Am J Hum Genet* 75: 1014-1022
- 44) ACHILLI A, RENGO C, MAGRI C, BATTAGLIA V, OLIVIERI A, SCOZZARI R, **CRUCIANI F**, ZEVIANI M, BRIEM E, CARELLI V, MORAL P, DUGOUJON JM, ROOSTALU U, LOOGVALI EL, KIVISILD T, BANDELT HJ, RICHARDS M, VILLEMS R, SANTACHIARA-BENERECETTI AS, SEMINO O, TORRONI A (2004) The molecular dissection of mtDNA haplogroup H confirms that the Franco-Cantabrian glacial refuge was a major source for the European gene pool. *Am J Hum Genet* 75: 910-918
- 45) **CRUCIANI F\***, BERNARDINI L, SANTOLAMAZZA P, MODIANO D, TORRONI A, SCOZZARI R (2003) Linkage disequilibrium analysis of the human adenosine deaminase (ADA) gene provides evidence for a lack of correlation between hot spots of equal and unequal homologous recombination. *Genomics* 82: 20-33
- 46) RICHARDS M, RENGO C, **CRUCIANI F**, GRATRIX F, WILSON JF, SCOZZARI R, MACAULAY V, TORRONI A (2003) Extensive female-mediated gene flow from sub-Saharan Africa into near eastern Arab populations. *Am J Hum Genet* 72: 1058-1064
- 47) **CRUCIANI F\***, SANTOLAMAZZA P, SHEN P, MACAULAY V, MORAL P, OLCKERS A, MODIANO D, HOLMES S, DESTRO-BISOL G, COIA V, WALLACE DC, OEFNER PJ, TORRONI A, CAVALLI-SFORZA LL, SCOZZARI R, UNDERHILL PA (2002) A back migration from Asia to sub-Saharan Africa is supported by high-resolution analysis of human Y-chromosome haplotypes. *Am J Hum Genet* 70: 1197-1214

- 48) TORRONI A, RENGO C, GUIDA V, **CRUCIANI F**, SELBITTO D, COPPA A, LUNA CALDERON F, SIMIONATI B, VALLE G, RICHARDS M, MACAULAY V, SCOZZARI R (2001) Do the four clades of the mtDNA haplogroup L2 evolve at different rates? *Am J Hum Genet* 69: 1348-1356
- 49) MODIANO D, LUONI G, SIRIMA BS, LANFRANCOTTI A, PETRARCA V, **CRUCIANI F**, SIMPORE J, CIMINELLI BM, FOGLIETTA E, GRISANTI P, BIANCO I, MODIANO G, COLUZZI M (2001) The lower susceptibility to Plasmodium falciparum malaria of Fulani of Burkina Faso (west Africa) is associated with low frequencies of classic malaria-resistance genes. *Trans R Soc Trop Med Hyg* 95: 149-152
- 50) SCOZZARI R, **CRUCIANI F**, PANGRAZIO A, SANTOLAMAZZA P, VONA G, MORAL P, LATINI V, VARESI L, MEMMI MM, ROMANO V, DE LEO G, GENNARELLI M, JARUZELSKA J, VILLEMS R, PARIK J, MACAULAY V, TORRONI A (2001) Human Y-chromosome variation in the western Mediterranean area: implications for the peopling of the region. *Hum Immunol* 62: 871-884
- 51) TORRONI A, BANDELT H-J, MACAULAY V, RICHARDS M, **CRUCIANI F**, RENGO C et al. (2001) A signal, from human mtDNA, of postglacial recolonization of Europe. *Am J Hum Genet* 69: 844-852
- 52) MALASPINA P, **CRUCIANI F**, SANTOLAMAZZA P, TORRONI A, PANGRAZIO A, AKAR N, BAKALLI V, BRDICKA R, JARUZELSKA J, KOZLOV AI, MALYARCHUK B, MEHDI, MICHALODIMITRAKIS E, VARESI L, MEMMI MM, VONA G, VILLEMS R, PARIK J, ROMANO V, STEFAN M, STENICO M, TERRENATO L, NOVELLETTO A, SCOZZARI R. (2000) Patterns of male-specific inter-population divergence in Europe, West Asia and North Africa. *Ann Hum Genet* 64: 395-412
- 53) RICHARDS M, MACAULAY V, HICKEY E, VEGA E, SYKES B, GUIDA V, RENGO C, SELBITTO D, **CRUCIANI F**, KIVISILD T, VILLEMS R, THOMAS M, RYCHKOV S, RYCHKOV O, RYCHKOV Y, GOLGE M, DIMITROV D, HILL E, BRADLEY D, ROMANO V, CALI F, VONA G, DEMAINE A, PAPIHA S, TRIANTAPHYLIDIS C, STEFANESCU G (2000) Tracing European founder lineages in the Near Eastern mtDNA pool. *Am J Hum Genet* 67: 1251-1276
- 54) GENNARELLI M, PAVONI M, **CRUCIANI F**, DE STEFANO G, DALLA PICCOLA B, NOVELLI G (1999) CTG repeats distribution and Alu insertion polymorphism at myotonic dystrophy (DM) gene in Amhara and Oromo populations of Ethiopia. *Hum Genet* 105: 165-167
- 55) MACAULAY V, RICHARDS M, HICKEY E, VEGA E, **CRUCIANI F**, GUIDA V, SCOZZARI R, BONNÉ-TAMIR B, SYKES B, TORRONI A. (1999) The emerging tree of West Eurasian mtDNAs: a synthesis of control-region sequences and RFLPs. *Am J Hum Genet* 64: 232-49.
- 56) TORRONI A, **CRUCIANI F**, RENGO C, SELBITTO D, LÓPEZ-BIGAS N, RABIONET R, GOVEA N, LÓPEZ DE MUNAIN A, SARDUY M, ROMERO L, VILLAMAR M, DEL CASTILLO I, MORENO F, ESTIVILL X, SCOZZARI R (1999) The A1555G mutation in the 12S rRNA gene of human mtDNA: Recurrent origins and founder events in families affected by sensorineural deafness. *Am J Hum Genet* 65: 1349-1358
- 57) SCOZZARI R, **CRUCIANI F**, SANTOLAMAZZA P, MALASPINA P, TORRONI A, SELBITTO D, ARREDI B, DESTRO-BISOL G, DE STEFANO G, RICKARDS O, MARTINEZ-LABARGA C, MODIANO D, BIONDI G, MORAL P, OLCKERS A, WALLACE DC, NOVELLETTO A (1999) Combined use of biallelic and microsatellite Y chromosome polymorphisms to infer affinities among African populations. *Am J Hum Genet* 65: 829-846
- 58) BROWN MD, HOSSEINI SH, TORRONI A, BANDELT H-J, ALLEN JC, SCHURR TG, SCOZZARI R, **CRUCIANI F**, WALLACE DC (1998) mtDNA Haplogroup X: An Ancient Link between Europe/Western Asia and North America? *Am J Hum Genet* 63: 1852-1861
- 59) MALASPINA P, **CRUCIANI F**, CIMINELLI BM, TERRENATO L, SANTOLAMAZZA P, ALONSO A, BANYKO J, BRDICKA R, GARCIA O, GAUDIANO C, GUANTI G, KIDD KK, LAVINHA J, AVILA M, MANDICH P, MORAL P, QAMAR R, MEHDI SQ, RAGUSA A, STEFANESCU G, CARAGHIN M, TYLER-SMITH C, SCOZZARI R, NOVELLETTO A. (1998) Network analyses of Y-chromosomal types in Europe, northern Africa, and western Asia reveal specific patterns of geographic distribution. *Am J Hum Genet* 63: 847-60
- 60) MALASPINA P, CIMINELLI BM, VIGGIANO L, JODICE C, **CRUCIANI F**, SANTOLAMAZZA P, SELBITTO D, SCOZZARI R, TERRENATO L, ROCCHI M, NOVELLETTO A (1997) Characterization of a small family (CAIII) of microsatellite-containing sequences with X-Y homology. *J Mol Evol* 44: 652-659
- 61) SCOZZARI R, **CRUCIANI F**, SANTOLAMAZZA P, SELBITTO D, COLE DEC, RUBIN LA, LABUDA D, MARINI E, SUCCA V, VONA G, TORRONI A (1997) mtDNA and Y chromosome-specific polymorphisms support an extensive male-mediated European gene flow in the Ojibwa. *Am J Hum Genet* 60: 241-244

- 62) SCOZZARI R, **CRUCIANI F**, MALASPINA P, SANTOLAMAZZA P, CIMINELLI B, TORRONI A, SPEDINI G, MODIANO D, WALLACE DC, OLCKERS A, KIDD KK, TERRENATO L, AKAR N, QAMAR R, MANSOOR A, MEHDI SQ, MORAL P, MELONI G, VONA G, COLE DEC, CAI W, NOVELLETTO A. (1997) Differential structuring of human populations for homologous X and Y microsatellite loci. *Am J Hum Genet* 61: 719-733
- 63) SCOZZARI R, **CRUCIANI F**, SANTOLAMAZZA P, PARRA E, SELBITTO D, MODIANO D, MELONI G, CAI W, MORAL P (1996) Novel tetranucleotide repeat polymorphism in the human adenosine deaminase gene: interethnic comparison of three major human groups *Hum Biol* 68:325-330
- 64) TORRONI A, PETROZZI M, SANTOLAMAZZA P, SELBITTO D, **CRUCIANI F**, SCOZZARI R (1995) About the "Asian"-specific 9-bp deletion of mtDNA ... *Am J Hum Genet* 57: 507-508
- 65) SCOZZARI R, **CRUCIANI F**, SANTOLAMAZZA P, SELBITTO D, MODIANO D, CAI W (1995) Allelic association between the HUMF13A01 (AAAG)<sub>n</sub> STR locus and a nearby two-base insertion/deletion polymorphic marker. *Am J Hum Genet* 56: 1005-1006
- 66) **CRUCIANI F**, SELBITTO D, SANTOLAMAZZA P, VESPERTILLI T, LERONE M, SPEDINI G, SCOZZARI R (1994) A MspI polymorphism in the X-specific region proximal to the pseudoautosomal boundary. A new example of unique "African" marker? *Hum Genet* 94: 215-216
- 67) SCOZZARI R, TORRONI A, SEMINO O, **CRUCIANI F**, SPEDINI G, SANTACHIARA BENERECETTI A S (1994) Genetic studies in Cameroon: Mitochondrial DNA polymorphisms in Bamileke. *Hum Biol* 66: 1-12

**(B) Book chapters:**

- 1) D'ATANASIO E, **CRUCIANI F**, TROMBETTA B (2021) Single Nucleotide Polymorphisms: An Overview of the Sequence Polymorphisms. In "Forensic Genetics: New Technology and Applications" CRC Press, UK
- 2) DUGOUJON J-M, COUDRAY C, TORRONI A, **CRUCIANI F**, SCOZZARI R, MORAL P, LOUALI N, KOSSMANN M (2009) The Berber and the Berbers: Genetic and linguistic diversities. In "Becoming eloquent: advances in the emergence of language, human cognition, and modern cultures", d'Errico Francesco and Hombert J-M (eds.). John Benjamins Publishing Company, Amsterdam
- 3) MALASPINA P, KOZLOV AI, **CRUCIANI F**, SANTOLAMAZZA P, AKAR N, KOVATCHEV D, KERIMOVA MG, PARIK J, VILLEMS R, SCOZZARI R, NOVELLETTO A (2002) Analysis of Y-chromosome variation in modern populations at the European-Asian Border. In "Ancient interactions: east and west in Eurasia. Boyle K, Renfrew C and Levine M (eds.). McDonald Institute Monographs, Cambridge, UK
- 4) MALASPINA P, **CRUCIANI F**, TORRONI A, TERRENATO L, NOVELLETTO A, SCOZZARI R (2000) Human Y-chromosomal networks and patterns of gene flow in Europe, West Asia and North Africa. In Archaeogenetics: DNA and the population prehistory of Europe. Renfrew C and Boyle K (eds.). McDonald Institute for Archaeological Research, Cambridge, UK

**(C) Books (teaching)**

- 1) **CRUCIANI F**, SCOZZARI R (2014) Genetica di Popolazioni, in "Genetica" a cura di Sergio Pimpinelli, Casa Editrice Ambrosiana.

**Rome, April 26, 2021**

*Felice Cruciani*