

EUROPEAN  
CURRICULUM VITAE  
FORMAT



PERSONAL INFORMATION

Name **FILIPPO BARNI**  
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NATIONALITY **Italian**

DATE OF BIRTH **05/05/1975**

FISCAL CODE **BRNFPP75E05G999F**

MOTHER TONGUE **Italian**

OTHER LANGUAGES

**English**

Joint Forces Language Test (STANAG NATO 6001 2<sup>^</sup> ed.) level 2-3-3-3 (Listening-Speaking-Reading-Writing).

- Understanding
  - Listening* B1
  - Reading* B2
- Speaking
  - Spoken interaction* B2
  - Spoken production* B2
- Writing C1

EDUCATION, COURSES AND  
MILITARY AND SCIENTIFIC TRAINING

- 1995-2002. University degree in Biological Sciences – specialization in biomolecular sciences (B.Sc. and M. Sc.) vote 110/110 cum laude at the University of Florence;
- 2002. Certification of biologist profession practice vote 150/150 cum laude at the University of Florence;
- 2002-2003. Training course as cadet at the Italian Army Officer School, Rome (Italy);
- 2003-2007. Post-degree specialization in Clinical Biochemistry (analytical and technological speciality) vote 50/50 cum laude at the University of Roma-Tor Vergata, Rome (Italy);
- 2006-2007. Training course as Carabinieri Officer of the scientific investigation section at the Carabinieri Officers School in Rome (Italy) – first classified;
- 2006. Honoured with a certificate of merit by the General Commander of Carabinieri for the scientific activities carried out for the tsunami victim identification in south-east Asia in December 2004;
- 2007. Paratrooper training course, Pontecagnano (SA), Italy – successfully completed;
- 2008. Honoured with a certificate of merit by the Italian National Civil Protection Agency for the scientific activities carried out for the tsunami victim identification in south-east Asia in December 2004;
- 2009. Honoured with a certificate of merit by the Italian National Civil Protection Agency for the scientific activities carried out for the L'Aquila (Italy) earthquake victim identification in April 2009;
- 2009. ISO standards auditor course, Rome (Italy) – successfully completed;
- 2010. NATO Functional Specialist CIMIC Corse at the Multinational CIMIC Group, Motta di Livenza (TV), Italy– successfully completed;
- 2009-2012. PhD in Molecular Anthropology at the University of Florence (Italy);
- 2014. Training course “Statistical Methods in Forensic Genetics” held by the Italian Society of Forensic Genetics (GeFI) and the European Forensic Genetics Network of Excellence (EuroforGen-NoE) – successfully completed;
- 2014. Training course “Forensic Science including DNA and policing challenges” held in Madrid (ES) by CEPOL – successfully completed;
- 2015. Training course “Statistical Methods in Forensic Genetics” held by the Italian Society of Forensic Genetics (GeFI) and the European Forensic Genetics Network of Excellence (EuroforGen-NoE) – successfully completed;
- 2015-2016. Honoured with several certificates of merit by the Commander of the

**WORK EXPERIENCE AND MAIN  
PROFESSIONAL ACTIVITIES**

Carabinieri Scientific Investigation Group for the scientific activities carried out to successfully solve serious crimes committed in Italy.

- 2018. Training course "Data Interpretation in Forensic Evidence" held in Budapest (H) by CEPOL – successfully completed.
  
- 2000-2002. Training student at the Biochemical Sciences Department of the University of Florence (Italy).
- 2003-ongoing. Carabinieri Officer at the Carabinieri Scientific Investigations Department of Rome in the Molecular Biology and Genetics Unit – Laboratory Director;
- 2003-ongoing. Forensic expert and consultant in Judiciary Courts;
- 2003-ongoing. Participation as lecturer in several Scientific forensic congresses and seminars especially concerning forensic genetics, forensic biochemistry, forensic statistics, CSI and DVI.
- 2005-ongoing. Italian DVI member employed in several national and international disasters among which several terrorist attacks in military missions abroad, the 2004 south-east Asia Tsunami and the 2009 L'Aquila (Italy) earthquake.
- 2007-2010. Lecturer of Applied Genetics and Applied Biochemistry at the Technologies and Applications in Scientific Investigations M. Sc course at the Faculty of Sciences of the University of Florence (Italy);
- 2007-2016. Lecturer of Applied Genetics and Applied Biochemistry at the Clinical and Forensic Chemistry M. Sc. Course of the Chemistry Department of the Faculty of Sciences of the University of Turin (Italy).
- 2007-ongoing. Reviewer in several scientific peer-reviewed journals.
- 2013-2016. Member of the project T4 of the ENFSI Monopoly Programme 2013 "SmartRank: A likelihood ratio software for searching national DNA databases with complex DNA profiles" (founded by ENFSI).
- 2015-2017. Member of the workgroup of the Italian Society of Forensic Genetics (GeFI) for the writing of analytical and interpretative guide-lines in forensic biology.
- 2018. Speaker at the ISFG Summer School in Forensic Genetics in the course "DNA interpretation in criminal casework using probabilistic software (LRmix Studio and EuroForMix)".

## MAIN PRESENT ACTIVITY

- Carabinieri Major at the Carabinieri Scientific Investigation Department of Rome in the Molecular Biology and Genetics Unit – Laboratory Director;
- Forensic expert and consultant in Judiciary Courts in the matters of forensic genetics and forensic biostatistics.

## PERSONAL SKILLS AND COMPETENCES

Main skills include:

- Forensic genetics and use of genotyping software (e.g.: GeneMapper ID-X)
- Forensic biostatistics and use of probabilistic software for the evaluation of the weight of DNA evidence (LRmix Studio, EuroForMix, Lab Retriever, DNA View, Familias, STRAF)
- Chemometric analyses applied to forensic biology by using software (e.g.: STR validator, Minitab) especially in setting and validating thresholds in genotyping analysis;
- Forensic biochemistry and molecular biology;
- CSI (Crime Scene Investigation);
- DVI (Disaster Victims Identification).

## MAIN SCIENTIFIC PUBLICATIONS IN PEER-REVIEWED JOURNALS AND BOOKS

- Berti A, **Barni F**, Virgili A, Iacovacci G, Franchi C, Rapone C, Di Carlo A, Oddo CM, Lago G (2005). *Autosomal STR frequencies in Afghanistan population*. Journal of Forensic Sciences. 50(6): 1494-1496.
- Berti A, **Barni F**, Lago G, Cavazzana A (2005). *Tumor progression and microsatellite instability of forensic STR loci in human lung cancer*. Identity Newsletter. Winter 2005/2006: 2-3.
- Berti A, **Barni F**, Virgili A, D'Errico G, Rapone C, Iacovacci G, Lago G (2006). *Allele frequencies of Penta D and Penta E Loci in Afghanistan population*. Journal of Forensic Sciences. 51(2): 434-435.
- Sato I, **Barni F**, Yoshiike M, Rapone C, Berti A, Nakaki S, Yamazaki K, Ishikawa F, Iwamoto T (2006). *Applicability of Nanotrap Sg<sup>®</sup> as a semen detection kit before male-specific DNA profiling in sexual assaults*. International Journal of Legal Medicine. 121(4):315-319.
- **Barni F**, Berti A, Pianese A, Boccellino A, Miller MP, Caperna A, Lago G (2006). *Allele frequencies of 15 autosomal STR loci in the Iraq population with comparisons to other populations from the middle-eastern region*. Forensic Science International. 167(1):87-92.
- **Barni F**, Berti A, Rapone C, Lago G (2006). *Alpha-amylase kinetic test in bodily single and mixed stains*. Journal of Forensic Sciences. 51(6):1389-1396.
- Rapone C, Geraci A, Capelli C, De Meo A, D'Errico G, **Barni F**, Berti A, Lago G (2007). *Y chromosome haplotypes in Central-South Italy: Implication for reference database*. Forensic Science International. 172(1):67-71.
- **Barni F**, Salata E, Rapone C, Kline M, Lago G, Butler J, Berti A. (2007). *Characterisation of novel alleles and duplication events in the STR DYS19*,

*DYS439, DYS389II and DYS385 loci*. Identity Newsletter. Spring 2007: 1-3.

- **Barni F**, Lewis SW, Berti A, Miskelly GM, Lago G (2007). *Forensic application of the luminol reaction as a presumptive test for latent blood detection*. Talanta. 72:896–913.
- Lewis SW, **Barni F** (2009). *Luminol* in A. Jamieson and A. Moenssens (eds.), Encyclopedia of Forensic Science, John Wiley & Sons Ltd, Chichester, UK:1645-1656.
- Ricci S, Massoni F, Cipolletta E, Lago G, **Barni F**, Riccobono F, Censi V (2009). *Identificazione delle tracce biologiche di utilizzo in ambito forense mediante macroarray. Studi preliminari*. Zacchia: archivio di medicina legale, sociale e criminologica. 82 (2).
- Franchi C, Pilli E, **Barni F**, Potenza S, Berti A (2011). *DNA typing strategy to overcome post-mortem bone maceration*. Forensic Science International: Genetics Supplement Series. 3(1): e367–e368.
- Berti A, **Barni F**, Virgili A, Colozza C, Maiorino F, Tocca M (2011). *The recovery of DNA profiles from saliva and touch evidences after postal bomb explosion*. Forensic Science International: Genetics Supplement Series. 3(1):e471-e472.
- Berti A, **Barni F**, Pace A (2011). *Le analisi delle macchie di sangue sulla scena del crimine. Una guida pratica e teorica sul BPA*. Edi-Ermes, Milano (book).
- Pilli E, Casamassima R, Vai S, Virgili A, **Barni F**, D'Errico G, Berti A, Lago G, Caramelli D (2014). *Pet fur or fake fur? A forensic approach*. Investig Genet. 5:7.
- Giampaoli S, Berti A, Di Maggio RM, Pilli E, Valentini A, Valeriani F, Gianfranceschi G, **Barni F**, Ripani L, Romano Spica V (2014). *The environmental biological signature: NGS profiling for forensic comparison of soils*. Forensic Science International. 240:41-47.
- De Vittori E, Giampaoli S, **Barni F**, Baldi M, Berti A, Ripani L, Romano Spica V. (2016). *Improvement and automation of a real-time PCR assay for vaginal fluids*. Forensic Sci Int. 262:179-182.
- De Vittori E, **Barni F**, Lewis SW, Antonini G, Rapone C, Berti A. (2016). *Forensic application of a rapid one-step tetramethylbenzidine-based test for the presumptive trace detection of bloodstains at the crime scene and in the laboratory*. Forensic Chemistry. 2:63-74.
- Benschop CCG, van de Merwe L, de Jong J, Vanvooren V, Kempnaers M, Kees van der Beek CP, **Barni F**, Reyes EL, Moulin L, Pene L, Haned H, Sijen T. (2017). *Validation of SmartRank: A likelihood ratio software for searching national DNA databases with complex DNA profiles*. Forensic Sci Int Genet. 29:145-153.
- Member of the working group concerning the “GeFI (Italian forensic genetics group) Recommendations in personal identification investigations” (2018). [http://www.gefi-isfg.org/temp/RACCOMANDAZIONI%20GeFI%20ITA\\_2018\(2\).pdf](http://www.gefi-isfg.org/temp/RACCOMANDAZIONI%20GeFI%20ITA_2018(2).pdf)
- Pilli E, Boccone S, Agostino A, Virgili A, D'Errico G, Lari M, Rapone C, **Barni F**, Moggi Cecchi J, Berti A, Caramelli D. (2018). *From unknown to known: Identification of the remains at the mausoleum of fosse Ardeatine*. Science&Justice. 58(6):469-478.

Rome, 20 November 2018

Major CC RT inv. sc. Filippo BARNI, PhD

