

## CURRICULUM VITAE

### **Personal Data:**

**Name:** Daniele

**Surname:** Armenia

**e-mail:** danielle.armenia@unicamillus.org

### **Educational and professional qualifications:**

- **Associate Professor in Microbiology and Clinical Microbiology (SSD MED/07 SC 06/A3)**

- **PhD in "Medical Microbiology and Immunology"** at the University of Rome "Tor Vergata", Department of Experimental Medicine and Biochemical Sciences - Chair of Virology obtained on July 5, 2010. Experimental thesis entitled: *"Impact of Integrase Polymorphisms and Minor Quasispecies in HIV-1 Infected Individuals Naive or Treated with Strand-transfer Integrase Inhibitors: a Refined Analysis by Cloning and 454-Pyrosequencing Techniques"*. Supervisors: Prof. Carlo Federico Perno and Francesca Ceccherini-Silberstein

- **Degree in Pharmaceutical Biotechnology (Old five-year system)** obtained in December 2005 with a score of 110/110 at the University of Bologna. Experimental thesis entitled *"Distribution and clinical valence of genotypic variants of HCMV glycoprotein gN in immunocompromised and immunocomponent patients"*, supervisor: Prof. Paola Dal Monte.

- **High school diploma** obtained with a score of 80/100 in July 1999 at the Liceo Scientifico Statale "Stanislao Cannizzaro" in Vittoria (RG).

### **Current position:**

Associate professor at the University "Saint Camillus International University of Health Sciences", Rome. Scientific disciplinary sector MED/07.

President of the three-year degree course in "Biomedical Laboratory Techniques" at the University "Saint Camillus International University of Health Sciences", Rome.

### **Work experience:**

(01/12/2018-30/09/2021): Researcher type A at the University "Saint Camillus International University of Health Sciences", Rome. Scientific disciplinary sector MED/07.

(01/07/2018-01/12/2018) Research fellow at the Chair of Virology, Faculty of Medicine and Surgery of the University of Rome "Tor Vergata", Via Montpellier, 1 00133, Rome. Scientific disciplinary sector MED/07.

(15/04/2016- 15/04/18) Senior research fellow at the Chair of Virology of the University of Rome "Tor Vergata" within the FIRB RBAP11YS7K project: Multidisciplinary study aimed at the identification and characterization of innovative markers able to define the role of hepatotropic viruses in the development of hepatocellular carcinoma: a model of encounter between basic and applicative research of which Prof. Carlo Federico Perno is responsible. Role: Management and supervision of next generation sequencing data and management and analysis of clinical-virological databases.

(15/04/15- 14/04/16) Senior research fellow at the chair of virology of the University of Rome "Tor Vergata" for the miur project - PRIN2012 - 2012L783TW\_00 "Study of the determinants of secondary and primary resistance of HIV-1 to antiretroviral drugs" of which Prof. Francesca Ceccherini-Silberstein is responsible. Role: Management and supervision of next generation sequencing data and management and analysis of clinical-virological databases.

(05/03/12-04/03/15) Junior Research Fellow at the Chair of Virology of the University of Rome "Tor Vergata" for the FIRB RBAP11YS7K project: "Multidisciplinary study aimed at the identification and characterization of innovative markers able to define the role of hepatotropic viruses in the development of hepatocellular carcinoma: a model of encounter between basic and applicative research" of which Prof. Carlo Federico Perno is responsible. Role: Management and supervision of next generation sequencing data and management and analysis of clinical-virological databases.

(31/07/11-04/03/12) Consultancy contract for the project "Characterization of patients failing to DRV and impact on the subsequent regimen multi center retrospective analysis" at the University of Rome "Tor Vergata", at the Laboratory of Virology of the Department of Experimental Medicine and Biochemical Sciences (Prof. Carlo Federico Perno) funded by the Italian Foundation for Antiviral Studies and Research (AVIRALIA).

(01/04/2010- 30/07/2011) Scholarship from the University of Rome "Tor Vergata" for the project "Collaborative HIV and anti-HIV drug resistance network (CHAIN)".

(07/11/2010-03/12/2010) Technical support at Laboratory of Virology at the "Pitié-Salpêtrière" hospital in Paris for the production of HIV-1 mutants by site-specific mutagenesis and recombinant HIV-1

(06/07/2007- 30/09/2007) Technical support at Virology laboratories of the company "Virco BVBA" – Mechelen (Belgium) for the production and phenotypic evaluation of viral clones derived from infected HIV-1 patients

(01/11/2006-31/10/2009) Ministerial scholarship for PhD in Medical Microbiology and Immunology at the Chair of Virology of the University of Rome "Tor Vergata"

### **Teaching:**

- (AA.AA 2020-2021) Thesis Supervisor of Ricardo Jerry Paul , Bachelor's Degree in Biomedical Laboratory Techniques, thesis title: "Evaluation of HIV-DNA levels and resistance for the management of treatment optimization in HIV-1 infected virologically suppressed individuals".
- (AA.AA 2019-oggi) Teacher for the integrated course in English "Microbiology" for the teaching of "Virology" of the degree course in Medicine and Surgery (LM-41) at the University "Saint Camillus International University of Health Sciences", Rome. 2 CFU SSD MED/07
- (AA.AA 2019-oggi) Teacher of the integrated course in Italian of "General pathology and pathophysiology" for the teaching of "Microbiology and clinical microbiology" of the degree course in Obstetrics (qualifying for the health profession of Midwife/ o, L / SNT1) at the University "Saint Camillus International University of Health Sciences", Rome. 2 CFU SSD MED/07
- (AA.AA 2019-oggi) Teacher and coordinator of the integrated course in English "General Pathology and Physiopathology" for the module "Microbiology and Clinical Microbiology" of the Bachelor's Degree in Nursing (qualifying for the health profession of Nurse, L / SNT1) at the University "Saint Camillus International University of Health Sciences", Rome. 1 CFU SSD MED / 07
- (AA.AA 2018-oggi) Teacher and coordinator of the integrated course in English "General pathology and microbiology" for the module "Microbiology and Clinical Microbiology" of the Bachelor's Degree course in Physiotherapy (qualifying for the health profession of Physiotherapist, L / SNT2) at the University "Saint Camillus International University of Health Sciences", Rome. 2 CFU SSD MED / 07
- (AA.AA 2018- oggi) Teacher for the integrated course in Italian of "Biochemistry, physiology and microbiology" of the degree course in Biomedical Laboratory Techniques (qualifying for the health profession of Biomedical Laboratory Technician, L / SNT3) at the University "Saint Camillus International University of Health Sciences", Rome. 2 CFU SSD MED / 07
- (AA.AA 2018- oggi) Teacher and coordinator of the integrated course in Italian of "Clinical Microbiology" for the teaching of "Microbiology, bacteriology and virology" of the degree course in Biomedical Laboratory Technicians at the University "Saint Camillus International University of Health Sciences", Rome. 4 CFU SSD MED/07
- (AA.AA 2018-oggi) Teacher for the integrated course in English "Biological and biochemical foundations of living systems" for the teaching of "Microbiology" of the degree course in Techniques of medical radiology, imaging and radiotherapy (enabling the health

- profession of Medical Radiology Technician, L / SNT3) at the University "Saint Camillus International University of Health Sciences", Rome. 1 CFU SSD MED/07
- (AA.AA 2018-2019) Teacher for the course of "Environmental Microbiology" of the Degree Course in "Evolutionary Biology, Ecology and Applied Anthropology" of the University of Rome "Tor Vergata". 6 CFU SSD MED/07
- (AA.AA. 2016- oggi) Teacher for the integrated course of "Microbiology" for the teaching of "Virology" of Medicine, Faculty of Medicine and Surgery of the University "Our Lady of Good Cou
- (AA.AA. 2017- oggi) Subject expert and member of the examination board for the integrated course of Microbiology, Faculty of Medicine and Surgery of the University of Rome "Tor Vergata"
- (AA.AA 2016-2017) Co-supervisor of the degree thesis by Giuseppe Oliveto, Master's Degree course in Medical Biotechnology, thesis title: "Evaluation of the impact of resistance to antiretroviral drugs in proviral DNA in virologically suppressed infected HIV-1 patients".
- (AA.AA 2015-2016) Co-supervisor of the specialization thesis of Monica Fiorentini, School of Specialization in Microbiology and Virology, thesis title: "Monitoring and clinical relevance of resistance in HIV-1 infected patients through the use of ultra-sensitive pyrosequencing 454".
- (AA.AA. 2012- 2017) Supplementary lessons for the course of Clinical Microbiology and Virology (6 CFU) for the Master's Degree Course in Biology of Health and Nutrition bio-health curriculum at the Faculty of Sciences Department of Clinical Medicine, Public Health, Life and Environmental Sciences (MESVA) of the University of L'Aquila.
- (AA.AA. 2011-2017) Supplementary lessons and member of the examination boards for the Special Virology Course (1 CFU), for the Integrated Course of Microbiology and Clinical Microbiology for the Three-Year Degree in Diagnostic Techniques of Biomedical Laboratory, Faculty of Medicine and Surgery of the University of Rome "Tor Vergata".
- (AA.AA. 2011-2015) Supplementary lessons for the Special Virology course for the School of Specialization in Microbiology and Virology, Faculty of Medicine and Surgery of the University of Rome "Tor Vergata".
- (AA.AA. 2011-2013) Supplementary lessons and member of the examination boards for the course of Molecular Virology (4 CFU) for the Master's Degree in Medical Biotechnology, Faculty of Medicine and Surgery of the University of Rome "Tor Vergata".
- (AA.AA. 2009-2011) Supplementary lessons and member of the examination boards for the course of Virology (4 CFU) for the Degree Course in Biological Sciences at the Faculty of Sciences MM.FF.NN of the University of L'Aquila.

### **Scientific Activity**

The research activity carried out to date is related to the following projects:

- Production of HIV-1 mutants by site-specific mutagenesis and recombinant HIV-1 containing specific patient regions.
- Phenotypic susceptibility studies under pharmacological pressure of mutated and/or recombined HIV-1 strains.
- Analysis of HIV mutations in relation to viro-immunological parameters, antiretroviral therapy and disease progression in order to: i) characterize viro-immunological parameters predictive of disease progression, ii) define markers of disease progression.
- Characterization of HIV-1 genome and viral proteins to discover new targets for antiviral drugs.

- Characterization of new and known mutations associated with resistance to anti-HIV drugs currently in use in clinical practice and in the experimental phase. The characterization of these mutations and their role in drug resistance is of considerable clinical relevance as it allows to improve the prediction of the response to antiretroviral drugs. It also contributes to a better evaluation of the effectiveness of new generation drugs.
  - Study and genetic characterization of HIV, HBV and HCV with classic sequencing methods (Sanger sequencing) and *next-generation sequencing*: study of the appearance and disappearance of mutations associated with resistance to antiviral drugs and / or genetic variants related to the response to antiviral therapy or virulence.
  - Collection and analysis of multicenter data for cohort studies at national and international level for the evaluation of prognostic factors of failure to antiretroviral therapy.
- During these years Prof. Armenia has worked abroad for collaborations with pharmaceutical-diagnostic companies (Virco BVBA, Beerse, Belgium) and European clinical centers (Pitié-Salpêtrière Hospital).

### **Awards**

- Award for the best oral presentation "Ricardo Camacho award" at the "European HIV & Hepatitis workshop, 26-28 May 2021, virtual meeting
- ICAR – CROI Awards 2019 for the Italian Scientific Research: CROI affiliated event for Italian young investigators; CROI Seattle, USA, 4-7 March, 2019 (first author).
- Award for the best oral presentation at the 2nd European HIV Clinical Forum: Integrase inhibitors, 22 October 2016, Glasgow (presenting author)
- Award for the best poster at the XIV European HIV & Hepatitis workshop, 25-27 May 2016, Rome (co-author)
- "Joep Lange" Award for best work presented at the Workshop "10th INTEREST", 3 - 6 May 2016, Yaoundé, Cameroon (co-author).
- ICAR – CROI Awards 2015 for the Italian Scientific Research: CROI affiliated event for Italian young investigators; CROI Seattle, USA, 3-5 February 23-26, 2015 (first author).
- Award for the best oral presentation at the 6th Italian Conference on AIDS and Retroviruses, Rome, Italy, 25-27 May, 2014 (co-author).
- Award for the best oral presentation at the 3rd Italian Conference on AIDS and Retroviruses, Florence, Italy, 27 29 March, 2011 (co-author).
- Award for the best oral presentation at the 1st Italian Conference on AIDS and Retroviruses, Milan 24-26 May 2009 (co-author).

### **Role in Funded Scientific Projects**

- 2018-2019: Data collection, management and analysis of the international multicenter virological study entitled "Non-interventional and epidemiological study of genotypic tests performed in HIV-1-infected treatment-naïve patients in routine clinical care in France and Italy to study prevalence of Doravirine associated resistance mutations"
- 2017-2018: Co-researcher of the Gilead project within the 2017 Fellowship Program entitled "Evaluation of the impact of the amount of HIV-DNA and resistance stored on the virological outcome of patients who change therapy in the context of optimization of antiretroviral therapy in real life"
- 2016-2018: Data collection, management and analysis of the multicenter virological study on "Surveillance, resistance and efficacy in patients who fail integrase inhibitors in Italy"
- 2015-2018: Data collection, management and analysis of the multicenter virological study "INIMAGE – Integrase Inhibitors Management by Genotype"
- 2014-2017: Collaborator of the Operative Unit of the PRIN Three-Year Research Project funded by the Ministry of University and Research, entitled "Study of the determinants of secondary and primary resistance of HIV-1 to antiretroviral drugs for control"
- 2013-2016: Collaborator of an Operating Unit of the PRIN Research Project "OMICS Technologies and Systems Biology for the definition of new strategies aimed at the control of viral infections", protocol n° 2010PHT9NF\_001

- 2012-2017: Collaborator of the three-year FIRB Project entitled "Multidisciplinary study aimed at the identification and characterization of innovative markers able to define the role of hepatotropic viruses in the development of hepatocellular carcinoma". HIRMA Study RBAP11YS7K\_001 Protocol.
- 2009-2014: Collaborator within the Operating Unit of the University of Rome "Tor Vergata" in the European Research Project CHAIN, the "Collaborative HIV and Anti-HIV Drug Resistance Network", Integrated Project no. 223131 funded by the European Commission Framework 7 Program

### **Scientific collaborations with hospitals, companies, research foundations, cohorts**

Active experience for the management, collection and analysis of virological data with the following national and international research institutions/ facilities:

- Chair of Virology, Department of Experimental Medicine, University of Rome "Tor Vergata"
- HIV-AIDS Unit, Institute of Infectious Diseases "Lazzaro Spallanzani", Rome
- Laboratory of Virology, Institute of Infectious Diseases Lazzaro Spallanzani, Rome
- Infectious Diseases Unit, Polyclinic of the University of Rome "Tor Vergata"
- University Hospital of Modena, Modena
- Institute of Infectious Diseases of the IFO San Gallicano Hospital, Rome
- Hospital "Santa Maria Goretti" of Latina, Latina
- Department of Oncology and Hemato-Oncology, University of Milan, Milan
- Laboratory of Virology of the Hospital "Pitié Salpêtrière", Paris
- INSERM, Sorbonne Université, Institut Pierre Louis d'Epidémiologie et de Santé Publique (IPLESP) équipe Epidémiologie clinique des maladies virales chroniques, Paris
- Chantal Biya International Reference Centre for research on HIV/AIDS Prevention and Management, Yaounde, Cameroon
- Division of Infectious Diseases, University of Turin, Turin
- Virco BVBA Mechelen, Belgium
- "Luigi Sacco" Hospital, Milan
- Hospital "SS Annunziata", Florence
- San Martino Hospital, Genoa
- Infectious Diseases Clinic, University of Bari, Bari
- Institute of Infection and Global Health, University of Liverpool, Liverpool, UK
- CHAIN, the "Collaborative HIV and Anti-HIV Drug Resistance Network"
- Cohort of antiretroviral-naïve patients (ICONA) Study group. ICONA joins today other prestigious European and American cohorts, with whom it collaborates in international research projects and represents the only experience of multicenter study on a large scale in Italy based on the use of a computer network powered and available for both basic research and clinical practice. ([http://www.fondazioneicona.org/\\_new2/index.php](http://www.fondazioneicona.org/_new2/index.php))
- ARCA Cohort (Antiviral Response Cohort Analysis). ARCA is a multicenter database to which about 100 virology laboratories and infectious disease clinics belong, operating on the national territory since 2002. It contains clinical and virological data from more than 30,000 HIV-infected patients and is oriented towards the topic of antiviral drug resistance. (ARCA, [www.hivarca.net](http://www.hivarca.net))
- AVIRALIA Foundation. The FONDAZIONE ITALIANA PER GLI STUDI E LE RICERCHE ANTIVIRALI (or, more briefly, FONDAZIONE AVIRALIA) is a non-profit organization of social utility (Onlus) established in February 2010 by the previous Italian Association for Antiviral Studies and Research, with the aim of promoting and developing medical-scientific research (in Italy and internationally) in the field of human diseases of viral origin (<http://www.aviraliafoundation.org/fondazione-chi-siamo.php>).

### **Participation in congresses**

He has participated in >100 national and international scientific congresses presenting oral communications and posters (see publications). He has given several lectures by invitation to National and International Congresses (see below). He was part of the scientific secretariat of the national workshop "Long-term therapy and new paradigms in HIV: virology and clinic", Florence, 6-7 November 2018.

### **Courses as a speaker**

- 07 June 2022: Participation as a speaker at the International Conference "European HIV Clinical Forum 2022" in the session "Antiretroviral Therapy 2022 - State of ART Plenary Lectures" with the lecture entitled "Resistance Considerations in Choice of Regimen".
- 22 July 2020: Participation as a speaker at the NATIONAL IMPACT Conference: "HIV, Hepatitis and other viruses: clinical, diagnostics and new management standards" in the session "Multi-drug resistant HIV infection: current events" with the lecture entitled "Italian multi-resistance data"
- 23 May 2018: Participation as a speaker of the mini-introductory lecture to the session "Antiretroviral therapy: focus on integrase inhibitor" of the 10th National Congress ICAR - Italian Conference on AIDS and Antiviral Research - Rome, 22-24 May 2018. Report title: The new frontier in HIV drug resistance: the integrase inhibitors
- 13 December 2016: Participation as a speaker at the educational course "BYKE Project" organized by the Italian Society of Infectious Diseases (SIMIT). Report title: HIV and resistance.
- 25 November 2016: Participation as a speaker at the international workshop "Comprehensive Management of Aging in HIV-Infected Subjects" held in Barcelona (Spain) on 24-25 November 2016. Report title: Management of HIV resistance in HIV aging patients. Switching to the most suitable regimen
- 25 May 2014: Participation as a speaker at the pre-Congress course "Virology and advanced laboratory diagnostics" held during the 6th national congress "Italian Conference on AIDS and Retroviruses", Rome 25-27 May 2014. Report title: Low copy number viral genotyping. Feasibility and clinical relevance.
- 15 October 2012: Participation as a speaker at the national workshop "Next generation sequencing: 454 technology between present and future", organized by Roche Diagnostic S.p.A. at the San Raffaele University Hospital, Milan. Report title: Next-generation sequencing in clinical practice: impact of HIV-1 minority quasispecies on tropism and resistance to antiretroviral therapy
- 9 July 2012: Participation as a speaker at the national workshop "Next generation sequencing: 454 technology between present and future", organized by Roche Diagnostic S.p.A. at the university teaching center - Luigi Sacco Hospital, Milan. Report title: Next-generation sequencing in clinical practice: impact of HIV-1 minority quasispecies on tropism and resistance to antiretroviral therapy
- 4 May 2012: Participation as a speaker at the international workshop "AREVIR-GenaFor-Meeting", held in Bonn, Germany on 4-5 May 2012. Report title: NGS in clinical Italian practice: impact of minor quasispecies on antiretroviral drug resistance and viral tropism

### **Publishing activity**

- Since 2016 reviewer of scientific articles from the following "peer reviewed" journals: Journal of Antimicrobial Chemotherapy, Journal of Medical Virology, Antiviral therapy, PLOS ONE, BMC infectious disease, Diagnostic Microbiology & Infectious Disease, Sexually Transmitted Infections, Scientific Report.
- Since 2015 sector editor for the international journal Infectious Diseases & Tropical Medicine
- From 2013 to today: author of scientific chapters and editorials concerning the new frontiers of HIV research for the journal ReAd Files, Il Punto in infettivologia, Le Infezioni in Medicina, Quaderni di Farmacologia Antinfettiva.

### **Laboratory techniques knowledge**

In addition to the basic laboratory procedures, the undersigned has acquired over the years a mastery of various methods in different sectors useful for microbiology.

#### *In cell biology:*

Propagation and maintenance of cell lines (COS-7, HeLa, U2OS, Jurkat, MT-4, 293T, C8166)

Isolation of lympho-monocyte cells from peripheral blood or buffy-coat (Ficoll, CD14 MicrobeadsMiltenyi Kit)

Transfection of cell lines (with the method of calcium phosphate, lipofetamine)

Infection of cell lines and with human cytomegalovirus (HCMV) and HIV-1

#### *In molecular biology/microbiology:*

RNA and DNA extraction

Analysis and sequencing of RNA and DNA (RT-PCR, PCR Touchdown and Nested, electrophoresis on agarose gel, DNA sequencing with Sanger method)

Site-specific mutagenesis (primer design, heat bacterial transformation or electroporation, preparation of plasmid DNA from bacteria [midpreparation and minipreparation])

*In bioinformatics/biostatistics:*

Alignment and analysis of genomic sequences from sanger sequencing and next generation sequencing of HIV-1, HCV, HBV (Integrative Genomics Viewer (IGV), Emboss package, Bioedit, Mega 5.0, ClustalX , SeqScape v.2.5 AppliedBiosystems, Amplicon Variant Analyzer Roche, Gs-Denovo Roche, GS-Mapper Roche, Exonerate package, Shorah package, Geneious 8.0, Pseq, Hydra)

-Evaluation of the impact of Apobec 3G-F cellular proteins in HIV-DNA editing in virologically suppressed patients through the following bioinformatics tools: Hypermut ver 2.0, Stanford HIVdb algorithm ver. 9.0

•Coordination of bioinformatics extraction pipeline sequencing data from MiSeq Illumina platform

•Basic knowledge of the Linux platform (Ubuntu 11, Fedora)

• Management and analysis of clinical, genotypic and phenotypic data for the study of antiviral drug resistance and viral evolution through the use of Databases (MS Excel, MS Access, SQL Express, R 11.0), statistical tools (SPSS26, MS Excel, R 11.0) and tools available on the web (Geno2Pheno, Comet HIV-1 v0.1, REGA HIV-1 SubtypingTool - Version 2.0, HIVseq and HIValg from Standford University HIV Drug Database web site)

• Mastery and experience in the management and analysis of multicenter clinical data through the use of basic and inferential statistical tests (logistic regression, survival analysis, parametric and non-parametric tests) through the use of SPSS 26 and R 11.0 statistical programs.

•Applications (MS Office 2019 Package)

### **Personal scientific activity and bibliometric indexes**

Author of 45 articles in extenso on international journals cited on PubMed with IF and author in >100 works presented at congresses.

Total Citations (source: Scopus, 31 August 2022): 673;

Index H (source: Scopus, 31 August 2022): 13.

Publications cover the following topics: impact of antiretroviral treatments on HIV infection; mechanisms of resistance to anti-HIV, HBV and HCV drugs; fitness and viral evolution of HIV and liver viruses; genotypic, phenotypic, structural and functional analysis of viral proteins. The IF impact refers to the year of publication

### **Publications**

#### **Papers in international journals (\*indicates first authors equal contribution)**

1. Santoro MM, **Armenia D\***, Teyssou E, Santos JR, Charpentier C, Lambert-Niclot S, Antinori A, Katlama C, Descamps D, Perno CF, Calvez V, Paredes R, Ceccherini-Silberstein F, Marcelin AG; LAMRES Study Group. Virological efficacy of switch to DTG plus 3TC in a retrospective observational cohort of suppressed HIV-1 patients with or without past M184V - The LAMRES Study. J Glob Antimicrob Resist. 2022 Aug 7:S2213-7165(22)00189-8. doi: 10.1016/j.jgar.2022.07.022. Epub ahead of print. PMID: 35948240. IF: 4.349.
2. **Armenia D**, Forbici F, Bertoli A, Berno G, Malagnino V, Gagliardini R, Borghi V, Gennari W, Cicalini S, Buonomini A, Teti E, Lanini S, Latini A, Sarmati L, Mussini C, Andreoni M, Antinori A, Perno CF, Ceccherini-Silberstein F, Santoro MM. Bictegravir/emtricitabine/tenofovir alafenamide ensures high rates of virological suppression maintenance despite previous resistance in PLWH who optimize

- treatment in clinical practice. *J Glob Antimicrob Resist*. 2022 Jul 3:S2213-7165(22)00161-8. doi: 10.1016/j.jgar.2022.06.027. Epub ahead of print. PMID: 35793776. IF: 4.349
3. Teto G, Nka AD, Fokam J, Bouba Y, Takou D, Fabeni L, Carioti L, **Armenia D**, Semengue ENJ, Dambaya B, Sosso SM, Colizzi V, Perno CF, Ceccherini-Silberstein F, Santoro MM, Ndjolo A. Detection of Gag C-terminal mutations among HIV-1 non-B subtypes in a subset of Cameroonian patients. *Sci Rep*. 2022 Jan 26;12(1):1374. doi: 10.1038/s41598-022-05375-9. PMID: 35082353; PMCID: PMC8791941. IF: 4.996
  4. **Armenia D**, Santoro MM, Bellocchi MC, Carioti L, Galli L, Galli A, Scutari R, Salsi E, Mussini C, Sterrantino G, Calza L, Rossetti B, Zazzi M, Castagna A; PRESTIGIO Registry Study Group. Viral resistance burden and APOBEC editing correlate with virological response in heavily treatment-experienced people living with multi-drug resistant HIV. *Int J Antimicrob Agents*. 2022 Jan;59(1):106492. doi: 10.1016/j.ijantimicag.2021.106492. Epub 2021 Dec 3. PMID: 34871747. IF: 15.441
  5. Bouba Y, **Armenia D\***, Forbici F, Bertoli A, Borghi V, Gagliardini R, Vergori A, Cicalini S, Mazzotta V, Malagnino V, Lichtner M, Latini A, Mussini C, Andreoni M, Antinori A, Perno CF, Ceccherini-Silberstein F, Santoro MM. Genotypic HIV-1 tropism determination might help to identify people with exhausted treatment options and advanced disease. *J Antimicrob Chemother*. 2021 Nov 12;76(12):3272-3279. doi: 10.1093/jac/dkab322. PMID: 34529797. IF: 5.758
  6. Fokam J, Ngoufack Jagni Semengue E, **Armenia D**, Takou D, Dambaya B, Teto G, Chenwi CA, Nka AD, Beloumou GA, Ndjeyep SCD, Tchouaket MCT, Fainguem N, Sosso SM, Colizzi V, Perno CF, Ndjolo A, Ceccherini-Silberstein F, Santoro MM. High performance of integrase genotyping on diverse HIV-1 clades circulating in Cameroon: toward a successful transition to dolutegravir-based regimens in low and middle-income countries. *Diagn Microbiol Infect Dis*. 2022 Feb;102(2):115574. doi: 10.1016/j.diagmicrobio.2021.115574. Epub 2021 Oct 22. PMID: 34864527. IF: 2.983
  7. **Armenia D**, Bouba Y, Gagliardini R, Fabeni L, Borghi V, Berno G, Vergori A, Cicalini S, Mussini C, Antinori A, Ceccherini-Silberstein F, Perno CF, Santoro MM. Virological response and resistance profile in highly treatment-experienced HIV-1-infected patients switching to dolutegravir plus boosted darunavir in clinical practice. *HIV Med*. 2021 Jul;22(6):519-525. doi: 10.1111/hiv.13062. Epub 2021 Jan 21. PMID: 33480094. IF: 3.094
  8. Semengue ENJ, **Armenia D**, Inzaule S, Santoro MM, Dambaya B, Takou D, Teto G, Nka AD, Yagai B, Fabeni L, Chenwi C, Angong Beloumou G, Djupsa Ndjeyep SC, Colizzi V, Perno CF, Ceccherini-Silberstein F, Fokam J. Baseline integrase drug resistance mutations and conserved regions across HIV-1 clades in Cameroon: implications for transition to dolutegravir in resource-limited settings. *J Antimicrob Chemother*. 2021 Apr 13;76(5):1277-1285. doi: 10.1093/jac/dkab004. PMID: 33501504. IF:5.578
  9. Lombardi F, Giacomelli A, **Armenia D**, Lai A, Dusina A, Bezenchek A, Timelli L, Saladini F, Vichi F, Corsi P, Colao G, Bruzzone B, Gagliardini R, Callegaro A, Castagna A, Santoro MM; ARCA Study Group. Prevalence and factors associated with HIV-1 multi-drug resistance over the past two decades in



- the Italian ARCA database. *Int J Antimicrob Agents*. 2021 Feb;57(2):106252. doi: 10.1016/j.ijantimicag.2020.106252. Epub 2020 Nov 28. PMID: 33259914. IF: 15.441
10. Malagnino V, Cerva C, Teti E, Campogiani L, Compagno M, Foroghi Biland L, Saderi L, Armenia D, Salpini R, Svicher V, Sotgiu G, Iannetta M, Andreoni M, Sarmati L. Poor CD4/CD8 ratio recovery in HBcAb-positive HIV patients with worse immune status is associated with significantly higher CD8 cell numbers. *Sci Rep*. 2021 Feb 17;11(1):3965. doi: 10.1038/s41598-021-83616-z. PMID: 33597631; PMCID: PMC7889897. IF: 4.996
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Daniele Armenia  
