



## Università degli Studi di Roma "Tor Vergata"

### **CURRICULUM DIDATTICO-SCIENTIFICO DELLA PROF.SSA ADA BERTOLI**

#### **DATI PERSONALI**

**Nome e Cognome:** Ada Bertoli

**Luogo e data di nascita:** Roma 15-01-1969

**ATTUALE POSIZIONE:** Funzionario tecnico (CATEGORIA D, POSIZIONE ECONOMICA D1 – AREA TECNICA, TECNICO-SCIENTIFICA ED ELABORAZIONI DATI). Università degli Studi di Roma "Tor Vergata", Laboratorio di Virologia

**Dipartimento:** Medicina Sperimentale e Chirurgia

**Indirizzo:** Via Montpellier 1

**Numero studio:** 06 72596553

**E-mail:** bertoli@uniroma2.it

**Orario ricevimento:** su appuntamento

**Settore scientifico-disciplinare:** Microbiologia e Microbiologia Clinica MED/07

#### **ATTIVITA' DIDATTICA - SCIENTIFICA**

##### **Titoli accademici e di studio:**

1998 Laurea in Scienze Biologiche –V. O.-Università degli Studi di Roma «La Sapienza».

2003 Specializzazione in Microbiologia e Virologia. Università di Roma "Tor Vergata". Voto 50/50 con lode.

2005 Abilitazione alla Professione di Biologo (I sessione 2005), Università di Viterbo "La Tuscia".

##### **Formazione post-laurea presso istituzioni italiane ed estere ed incarichi professionali (didattici e di ricerca):**

1999/2000 Svolgimento del tirocinio post-laurea presso l'Unità Monitoraggio Terapie Antivirali ed Antineoplastiche, Dirigente Medico Prof. Carlo-Federico Perno, presso Istituto Nazionale Malattie Infettive di Roma "Lazzaro Spallanzani"–Roma-.

1999/2001 Borsa di studio per il Settore Laboratori bandita per concorso pubblico, per titoli ed esami, dall' Istituto Nazionale Malattie Infettive di Roma "Lazzaro Spallanzani".

2001/2004 Da Dicembre del 2001 a Marzo del 2004 post-doc presso Division of Clinical Virology del Karolinska Institutet –Stockholm-Sweden.

2004/2007 Contratto triennale, cattedra di Virologia del Dipartimento di Medicina Sperimentale e Scienze Biochimiche dell'Università degli Studi di Roma «Tor Vergata». "Globuli rossi come "drug carriers" (Progetto FIRB\_ Protocollo N° RBNE01TBTR)

2007/2013 Contratto libero-professionale in qualità di Biologo Specialista presso il laboratorio dell'UOC Virologia Molecolare, Dip. Medicina di Laboratorio, della Fondazione Policlinico Tor Vergata, Roma.

2012/2013 Assegnista di ricerca presso la cattedra di Virologia del Dipartimento di Medicina Sperimentale e Scienze Biochimiche dell'Università degli Studi di Roma

2013/2017 Ricercatrice a contratto TD-a presso la cattedra di Virologia del Dipartimento di Medicina Sperimentale e Chirurgia dell'Università degli Studi di Roma «Tor Vergata».

Autrice di 75 articoli pubblicati su riviste internazionali con IF, 1 capitolo di libro ed oltre 130 abstract/atti di congressi.

Totale citazioni relative ad articoli su rivista: 1461

H-Index 20 (fonte scopus) al 20/07/2018

##### **Finanziamenti e premi ricevuti per attività di ricerca:**

Attività di ricerca finalizzata alla caratterizzazione di nuovi fattori virali e dell'ospite predittivi di sviluppo di HCC in pazienti con infezione cronica da HBV, HCV, HDV.

2012-2017: Responsabile di un sottoprogetto WP4: “Genomica e system biology per lo studio della riattivazione virale in pazienti immunosoppressi” all’interno del Progetto di Ricerca Bandiera InterOmics PB05 1° “Sviluppo di una piattaforma integrata per l’applicazione delle scienze “omiche” alla definizione dei biomarcatori e profili diagnostici, predittivi, e teranostici”, finanziato dal Ministero dell’Università e della Ricerca.

Coordinatrice dell’attività di diagnostica virologica molecolare focalizzata anche sull’analisi dei test di genotipizzazione eseguiti nell’ambito della diagnostica di infezioni ad eziologia virale causate da agenti patogeni quali HIV-1, HBV e HCV.

#### **Attività di ricerca: pubblicazioni selezionate**

1. Antinori A, ..., **Bertoli A**, Di Giambenedetto S, Trotta MP, Rizzo MG, Girardi E, De Luca A, Perno CF. Drug-resistant mutants of HIV-1 in patients exhibiting increasing CD4 cell count despite virological failure of highly active antiretroviral therapy. *AIDS*. 2001 Nov 23;15(17):2325-7.
2. Perno CF, ....., **Bertoli A**, Violin M, Monno L, Zauli T, Montroni M, Ippolito G, d’Arminio-Monforte A; I.CO.N.A Study Group. Low prevalence of primary mutations associated with drug resistance in antiviral-naïve patients at therapy initiation. *AIDS*. 2002 Mar 8;16(4):619-24.
3. F. Ceccherini-Silberstein, F. Erba, F. Gago, **A. Bertoli**, ....., and C.F. Perno: Identification of the Minimal Conserved Structure of HIV-1 Protease and Absence of Drug Pressure. *AIDS*. 2004 Aug 20;18(12):F11-9.
4. **Bertoli A**, Franco M, Balzarini J, Johansson M, Karlsson A. Altered deoxyribonucleotide pools in T-lymphoblastoid cells expressing the multisubstrate nucleoside kinase of *Drosophila melanogaster*. *FEBS J*. 2005 Aug;272(15):3918-28. [I.F. 4,25]\* Cites 11
5. **A Bertoli\***, MM Santoro\*, ....., A Antinori, CF Perno, and the CARE Study Group. Viro-immunological response to ritonavir boosted or unboosted atazanavir in a large cohort of multiply treated patients: the CARE Study. (Submitted) [**\* Contributed equally to this work**]. *AIDS patient care and STDs*, 2008; 22(1): 7-16
6. MM Santoro, **A Bertoli**, et . Different patterns of mutations involved in the genotypic resistance score for atazanavir boosted versus atazanavir unboosted by ritonavir in multiply failing patients. *Infection*. 2009 Jun;37(3):233-43.
7. Santoro MM, ..., **Bertoli A**, Di Carlo D, Gori C, Carta S, ....., Ceccherini-Silberstein F, Antinori A, Perno CF. “Reliability and clinical relevance of the HIV-1 drug resistance test in patients with low viremia levels”. *Clin Infect Dis*. 2014 Apr;58(8):1156-64. doi: 10.1093/cid/ciu020. Epub 2014 Jan 14.
8. Armenia D, .., Svicher V, **Bertoli A**, .., Ceccherini-Silberstein F, Perno CF, Santoro MM. “A Very Low Geno2pheno False Positive Rate Is Associated with Poor Viro-Immunological Response in Drug-Naïve Patients Starting a First-Line HAART.” *PLoS One*. 2014 Aug 25; 9(8):e105853.
9. Surdo M, **Bertoli A**, Colucci G, ..., Ciotti M. “Total HIV-1 DNA detection and quantification in peripheral blood by COBAS®AmpliPrep/COBAS® TaqMan® HIV-1 Test, v2.0.” *Clin Chem Lab Med*. 2015 Sep 24.
10. G Maffongelli, C Alteri, E Gentilotti, **A Bertoli**, .., and L Sarmati. Impact of HIV-1 Tropism on the Emergence of non-AIDS Events in HIV-Infected Patients Receiving Fully Suppressive Antiretroviral Therapy. *AIDS*. 2016 Mar 13;30(5):731-41.
11. Soria A, Alteri C, Scarlatti G, **Bertoli A**, ....., Gori A. Occupational HIV Infection in a Research Laboratory With Unknown Mode of Transmission: A Case Report. *Clin Infect Dis*. 2017 Mar 15;64(6):810-813.
12. Di Maio ....., **Bertoli A**, ....., Perno CF, Ceccherini-Silberstein F; HCV Virology Italian Resistance Network (VIRONET-C). Frequent NS5A and multiclass resistance in almost all HCV genotypes at DAA failures: what are the chances for second-line regimens? *J Hepatol*. 2017 Sep 20. pii: S0168-8278(17)32288-2.
13. **Bertoli A**, ....., Perno CF, Cento V, Ceccherini-Silberstein F; HCV Virology Italian Resistance Network (VIRONET-C). Prevalence of Single and Multiple Natural NS3, NS5A and NS5B Resistance-Associated Substitutions in Hepatitis C Virus Genotypes 1-4 in Italy. *Sci Rep*. 2018 Jun 12;8(1):8988.



# Università degli Studi di Roma "Tor Vergata"

## **ACADEMIC AND SCIENTIFIC CURRICULUM OF PROF. ADA BERTOLI**

### **PERSONAL DATA**

**Name and Surname:** Ada Bertoli

**Place and date of birth:** Rome, 1969-01-15

**CURRENT POSITION:** Technical Officer

**Department:** Department of Experimental Medicine and Surgery

University of Rome Tor Vergata

**Address:** Via Montpellier, 1, 00133 Roma, F Nord, 2nd floor room.253

Chair of Virology, University of Tor Vergata, 00133 Rome

**Phone number:** 06 7259 6553

**E-mail:** bertoli@uniroma2.it

**Consulting hours:** appointment by email

**Italian Ministry of Education Academic-Scientific sector:** MED/07

### **SCIENTIFIC AND DIDACTIC ACTIVITY**

#### **Education and academic positions:**

1998 Degree in Biology at the University of Rome "La Sapienza".

2003 Specialist Degree with honours (50/50 cum laude) in Microbiology and Virology, University of Rome "Tor Vergata"

#### **Professional and didactic activities in Italian and Foreign Institutions: ...**

1999/2001 Post-degree fellowship of INMI "L.Spallanzani", Rome at the Monitoring Unit for Antiviral and Antineoplastic Diseases, directed by Prof. Carlo-Federico Perno.

2001/2004 Post doc position at the Karolinska Institutet –Stockholm-Sweden, Directed by Prof. Anna Karlsson.

2004/2007 Research Fellow at the Department of Experimental Medicine University of Rome Tor Vergata, Rome, Italy "Red blood cells as "drug carriers""

2007/2013 Virologist in Laboratory of Molecular Virology, University Hospital Tor Vergata, Rome

2012/2013 Research Fellow at the Department of Experimental Medicine University of Rome Tor Vergata, Rome, Italy "Characterization of innovative markers in the development of hepatocellular carcinoma and viral aetiology" \_FIRB\_2010\_ Protocol Number RBAP11YS7K

2012-2017: University Researcher TD- a at the University of Rome "Tor Vergata" for the disciplinary sector MED / 07.

**Research activity:** Research activities aimed at the exploitation of new host and viral factors predictive of developing HCC in patients with chronic HBV, HCV and HDV infection.

Coordinator of virological diagnostics also focused on the analysis of Molecular genotyping test carried out in the context of viral infections caused by pathogens such as HIV-1, HBV and HCV.

2012-2017: Coordinator of WP4 " Genomics and system biology to the study of viral reactivation in immunocompromised patients " within the project "Omics Applications in Virology" of the InterOmics PB05 Flag Research Project 1 ° " Development of an integrated platform for the application of the "omics" sciences to the definition of biomarkers and diagnostic, predictive and therapeutic profiles ", funded by the Ministry of University and Research.

She is author of 75 articles published in peer reviewed journals and over 130 abstracts published in proceedings or in peer reviewed journals cited on PubMed.

1. Antinori A, ..., **Bertoli A**, Di Giambenedetto S, Trotta MP, Rizzo MG, Girardi E, De Luca A, Perno CF. Drug-resistant mutants of HIV-1 in patients exhibiting increasing CD4 cell count despite virological failure of highly active antiretroviral therapy. *AIDS*. 2001 Nov 23;15(17):2325-7.
2. Perno CF, ....., **Bertoli A**, Violin M, Monno L, Zauli T, Montroni M, Ippolito G, d'Arminio-Monforte A; I.CO.N.A Study Group. Low prevalence of primary mutations associated with drug resistance in antiviral-naïve patients at therapy initiation. *AIDS*. 2002 Mar 8;16(4):619-24.
3. F. Ceccherini-Silberstein, F. Erba, F. Gago, **A. Bertoli**, ....., and C.F. Perno: Identification of the Minimal Conserved Structure of HIV-1 Protease and Absence of Drug Pressure. *AIDS*. 2004 Aug 20;18(12):F11-9.
4. **Bertoli A**, Franco M, Balzarini J, Johansson M, Karlsson A. Altered deoxyribonucleotide pools in T-lymphoblastoid cells expressing the multisubstrate nucleoside kinase of *Drosophila melanogaster*. *FEBS J*. 2005 Aug;272(15):3918-28. [I.F. 4,25]\* Cites 11
5. **A Bertoli\***, MM Santoro\*, ....., A Antinori, CF Perno, and the CARE Study Group. Viro-immunological response to ritonavir boosted or unboosted atazanavir in a large cohort of multiply treated patients: the CARE Study. (Submitted) [\* Contributed equally to this work]. *AIDS patient care and STDs*, 2008; 22(1): 7-16
6. MM Santoro, **A Bertoli**, et . Different patterns of mutations involved in the genotypic resistance score for atazanavir boosted versus atazanavir unboosted by ritonavir in multiply failing patients. *Infection*. 2009 Jun;37(3):233-43.
7. Santoro MM, ..., **Bertoli A**, Di Carlo D, Gori C, Carta S, ....., Ceccherini-Silberstein F, Antinori A, Perno CF. "Reliability and clinical relevance of the HIV-1 drug resistance test in patients with low viremia levels". *Clin Infect Dis*. 2014 Apr;58(8):1156-64. doi: 10.1093/cid/ciu020. Epub 2014 Jan 14.
8. Armenia D, .., Svicher V, **Bertoli A**, .., Ceccherini-Silberstein F, Perno CF, Santoro MM. "A Very Low Geno2pheno False Positive Rate Is Associated with Poor Viro-Immunological Response in Drug-Naïve Patients Starting a First-Line HAART." *PLoS One*. 2014 Aug 25; 9(8):e105853.
9. Surdo M, **Bertoli A**, Colucci G, ..., Ciotti M. "Total HIV-1 DNA detection and quantification in peripheral blood by COBAS®AmpliPrep/COBAS® TaqMan® HIV-1 Test, v2.0." *Clin Chem Lab Med*. 2015 Sep 24.
10. G Maffongelli, C Alteri, E Gentilotti, **A Bertoli**, .., and L Sarmati. Impact of HIV-1 Tropism on the Emergence of non-AIDS Events in HIV-Infected Patients Receiving Fully Suppressive Antiretroviral Therapy. *AIDS*. 2016 Mar 13;30(5):731-41.
11. Soria A, Alteri C, Scarlatti G, **Bertoli A**, ....., Gori A. Occupational HIV Infection in a Research Laboratory With Unknown Mode of Transmission: A Case Report. *Clin Infect Dis*. 2017 Mar 15;64(6):810-813.
12. Di Maio ....., **Bertoli A**, ....., Perno CF, Ceccherini-Silberstein F; HCV Virology Italian Resistance Network (VIRONET-C). Frequent NS5A and multiclass resistance in almost all HCV genotypes at DAA failures: what are the chances for second-line regimens? *J Hepatol*. 2017 Sep 20. pii: S0168-8278(17)32288-2.
13. **Bertoli A**, ....., Perno CF, Cento V, Ceccherini-Silberstein F; HCV Virology Italian Resistance Network (VIRONET-C). Prevalence of Single and Multiple Natural NS3, NS5A and NS5B Resistance-Associated Substitutions in Hepatitis C Virus Genotypes 1-4 in Italy. *Sci Rep*. 2018 Jun 12;8(1):8988.