# Curriculum Vitae

Personal information nunzia sanarico

Work experience

***Work Experience***

11/2006-today Senior Scientist at the Italian National Institute of Health, Rome, Italy. Activities:
• Studies on the effects of influenza vaccine on the immune responses to SARS-CoV-2 vaccination
• Participation as Assessor in training in the Evaluation Procedures of modifications to the AIC of viral vaccines
• Participation in Proficiency Testing Scheme study (PTS) and Audit to vaccine Quality Control Laboratory (WHO/EDQM)
• Quality control of Viral vaccines (batch release and post marketing surveillances)
• Viral vaccine research activities and methods development (including participation in an IMI2 project VAC2VAC on the development of alternative in vitro potency assays for human and veterinary vaccines)
• Eepidemiological, genetic and molecular studies in HIV infected inmates and migrants in Italy
• Development of ELISA methods for the determination antibodies against various HIV proteins
• Development of assays to determine the antiviral responses (ADCC) mediated by antibodies against HIV proteins in plasmas of patients enrolled in clinical vaccine trials
• Preparation of laboratories for the diagnosis of HIV infection, and monitoring of virological and immunological parameters

09-12/2006 Senior Scientist at the Council of National Research, Rome, Italy. Activities:
• Cellular and molecular studies on differentiating dendritic cells with or without infection with different strains of *Mycobacterium tuberculosis*

02-05/2006 Scientist (mission as Expert Immunologist of University of Rome “Tor Vergata”) at the Centre International Reference and the research “Chantal Biya”, Yaoundè, Camerounin for a transfer of

technologies in biomedicine. Activities: •Preparation of a laboratory for the diagnosis of HIV infection and development of experimental methods and protocols aimed at diagnostics and research against HIV/AID

11/2001-11/2005 Research assistant at the University of Rome "Tor Vergata, Italy. Activities:
• Studies on the role of monocytes-derived dendritic cells in course of immune response. Studies on the effect of interleukin 2 and *Mycobacterium tuberculosis* infection in the immunobiology of human dendritic cells

11/2000-09/2001 Scientist at the Research Department of the Italian pharmaceutical company Polifarma SpA, Rome, Italy. Activities:
• Purification of snake venom metalloproteins and activity of the synthesis components on snake venom metalloproteases

## Education and training

***Education***

2005-2006 First level Master in "Transfer of Technologies in Biomedicine for Emerging and Developing Countries", University of Rome "Tor Vergata" Italy. Thesis title: "Support to the Chantal Bya center for the prevention and treatment of AIDS". Score: 110/110 cum laude

2001-2005 Doctor of Philosophy degree in Immunology, University of Rome "Tor Vergata", Italy. Thesis title: "The effect of IL-2 in the immunobiology of human monocyte-derived dendritic cells: a new tool for the in vitro generation of antigen presenting cells with an implemented ability in priming Th1 immune response.

1991-1999 Bachelor of Sciences degree from the University of "Tor Vergata", Rome, Italy. Degree in molecular and cellular biology. Thesis title: "Mechanisms of selection of peptides in HLA-DR: role of residue beta 69" Score: 110/110 cum laude.

1994-1995 Full time student at School of Biological Sciences, University of Manchester, UK (Erasmus programme of the European Union).

## Additional information

Publications

***Peer-reviewed publications:***

1. Maggiorella MT, **Sanarico N**, et all. High HIV-1 diversity in immigrates resident in Italy (2008-2017). Sci Rep. 2020.Feb 24;10(1):3226. doi: 10.1038/s41598-020-59084-2

2. **Sanarico N**, D'Amato S, et all. Correlates of infection and molecular characterization of blood-borne HIV, HCV, and HBV infections in HIV-1 infected inmates in Italy: An observational cross-sectional study. Medicine (Baltimore). 2016 Nov;95(44) e5257. doi: 10.1097/MD.0000000000005257

3. **Sanarico N**, D'Amato S, et all. Building up a collaborative network for the surveillance of HIV genetic diversity in Italy. A pilot study. Ann Ist Super Sanità 2015. Vol. 51, No. 4: 321-326 DOI:10.4415/ANN_15_04_12
4. **Sanarico N**, Colone A, Grassi M, Speranza V, Giovannini D, Ciaramella A, Colizzi V, Mariani F.. Different Transcriptional Profiles of Human Monocyte-Derived Dendritic Cells Infected with Distinct Strains of *Mycobacterium tuberculosis and Mycobacterium bovis* Bacillus Calmette-Guérin. Clin Dev Immunol. 2011;2011:741051. Epub 2011 Mar 22

5. Ciaramella A, Bizzoni F, Salani F, Vanni D, Spalletta G, **Sanarico N**, Vendetti S, Caltagirone C, Bossù P. Increased pro-inflammatory response by dendritic cells from patients with Alzheimer's disease. J Alzheimers Dis. 2009 Nov 5.

6. Butto, S. ; Fanales-Belasio, E. ; Bernasconi, D. ; Tavoschi, L. ; Chiappi, M. ; **Sanarico, N**. ; Cenci, A. ; De Araujo, J. ; Salvi, E. ; Rovetto, C. ; Di Zeo, P. ; Narino, M. ; Holmes, H. ; Erfle, V. ; Barnett, S. ; Srivastava, I. K. ; Clerici, M. ; Malnati, M. ; Poli, G. ; Vardas, E. ; Ensoli, B Cross-Clade Recognition of Structural and Regulatory HIV-1 Antigens and Virus Neutralization by Sera from HIV-Infected South African Subjects. AIDS RESEARCH AND HUMAN RETROVIRUSES Volume 24 Page 50-50 Published 2008

7. Ciaramella A, **Sanarico N**, Bizzoni F, Moro ML, Salani F, Scapigliati G, Spalletta G, Caltagirone C, Bossù P. Amyloid beta peptide promotes differentiation of pro-inflammatory human myeloid dendritic cells. Neurobiol Aging. 2009 Feb;30(2):210-21. Epub 2007 Jul 20.

8. Sacchi A, Cappelli G, Cairo C, Martino A, **Sanarico N**, D'Offizi G, Pucillo LP, Chenal H, De Libero G, Colizzi V, Vendetti S. Differentiationc of monocytes into CD1a-dendritic cells correlates with disease progression in HIV-infected patients. J Acquie Immune Defic Syndr. 2007 Dec 15;46(5):519-28.

9. **Sanarico N**, Ciaramella A, Sacchi A, Bernasconi D, Bossù P, Mariani F, Colizzi V, Vendetti S. Monocytes-derived dendritic cells differentiated in the presence of IL-2 produce proinflammatory citokines and prime Th-1 immune response. J Leukoc Biol. 2006 Sep;80(3):555-62.

10. Volpe E, Cappelli G, Grassi M, Martino A, Serafino A, Colizzi V, **Sanarico N**, Mariani F. Gene profiling of human macrophages at late time of infection with *Mycobacterium tuberculosis*. Immunology. 2006 Aug;118(4):449-60.

11. Martino A, Sacchi A, **Sanarico N**, Spadaro F, Ramoni C, Ciaramella A, Pucillo LP, Colizzi V, Vendetti S. Dendritic cells derived from BCG-infected precursors induce Th-2 T cell differentiation. J Leukoc Biol. 2004 Oct;76(4):827-34.

12. Ciaramella A, Cavone A, Santucci MB, Garg SK, **Sanarico N**, Bocchino

M, Galati D, Martino A, Auricchio G, D'Orazio M, Stewart GR, Neyrolles O, Young DB, Colizzi V, Fraziano M. Induction of apoptosis and release of interleukin-1 beta by cell wall-associated 19-kDa lipoprotein during the course of mycobacterial infection. J Infect Dis. 2004 Sep 15;190(6):1167-76.

13. Berretta F, Butler RH, Diaz G, **Sanarico N**, Arroyo J, Fraziano M, Aichinger G, Wucherpfennig KW, Colizzi V, Saltini C, Amicosante M. Detailed analysis of the effects of Glu/Lys beta69 human leukocyte antigen-DP polymorphism on peptide-binding specificity. Tissue Antigens. 2003 Dec;62(6):459-71.

14. Amicosante M, **Sanarico N**, Berretta F, Arroyo J, Lombardi G, Lechler R, Colizzi V, Saltini C. Beryllium binding to HLA-DP molecule carrying the marker of susceptibility to berylliosis glutamate beta 69. Hum Immunol. 2001 Jul;62(7):686-93.

***Other Publications***

1. EU Batch Release Procedure Human Vaccines. Annual Report, Italian National Institute of Health – years from 2016 to 2022
2. COVID Contents, Italian National Institute of Health, n. 4,5,6,7 and 8, 2022
3. COVID Reports. Interim immunological strategies for the therapy and prevention of COVID-19. ISS COVID-19 Immunology Working Group, • n. 48/202

Projects

***Grant:***

Clinical-epidemiological and serological study in immigrant populations in Italy GILEAD-Felloship Program, 2011-2013

***Projects:***

European Project: IMI2 (Innovative Medicines Initiative 2 - Horizon 2020) - H2020-JTI-IMI2-2015-03, 115924 – VAC2VAC: “Vaccine batch to Vaccine batch comparison by consistency testing” (2016-20). IMI2 Grant Agreement 2014-02136.

Several projects concerning prevention and immunological and virological studies on HIV infection, on the development of a vaccine against HIV-AIDS. Projects on the role of cells of the immune system in the cell-mediated response to infections. Project on the effects of influenza vaccine on the immune responses to SARS-CoV-2 vaccination

Memberships

Other Relevant Information