

# Curriculum Vitae

## 1. Personal information

---

Family name, First name: Nicoli Francesco  
Date of Birth: August 27<sup>th</sup> 1985  
Place of Birth: Isola della Scala (VR), Italy  
Contact: +39-328 1539260, nclfnc1@unife.it

Current employment: Researcher at the Department of Chemical, Pharmaceutical and Agricultural Sciences, University of Ferrara, Italy

## 2. Experience, Training and Education

---

May 2021                                      Researcher (RTD/b), Medical Microbiology, University of Ferrara.

November 2018-                              Second PhD, Biomedical and Biotechnological sciences, University of Ferrara.  
Supervisor: Prof. Peggy Marconi

September 2017 –                              Post doc at University of Padua, Department of Molecular Medicine, Padua,  
August 2018                                      Italy. Supervisor: Prof. Antonella Caputo

March 2015- August 2017                      Post-doc at INSERM Unit 1135, Paris, France. Supervisor: Dr. Victor Appay

October 2103 –                                      Research assistant at the Department of Life Sciences and Biotechnology  
December 2014                                      (SveB), University of Ferrara, Italy. Supervisor: Prof. Riccardo Gavioli

September 2010-                                      PhD in Medical research-International Health, Center of International Health –  
September 2013                                      Ludwig Maximilians University – Munich – Germany. Thesis title:  
“Immunomodulatory properties of the HIV-1 Tat protein”. Supervisors: Prof.  
Thomas Brocker, Dr. Christof Geldmacher, Prof. Riccardo Gavioli

September 2009-                                      Fellow at the Department of Biochemistry and Molecular Biology, University  
September 2010                                      of Ferrara, Italy. Supervisor: Prof. Riccardo Gavioli

July 2009    Specialistic 5-years degree in Pharmaceutical Chemistry and Technology at the  
University of Ferrara with 110/110 cum laude. Title of the thesis: “Pre-clinical  
studies on a Tat-based vaccine against HIV-AIDS”. Supervisor: Prof. Riccardo  
Gavioli

## 3. Research areas of interest

---

- Immunopathogenesis of infectious diseases
  - Role of viral factors in HIV pathogenesis

- Studies of mechanisms characterizing the higher susceptibility to infections in elderly populations
- Characterization of CD8<sup>+</sup> T cell dysfunctions in ageing and viral infections
- Immune restoration after DAA therapy in HCV-infected patients
- Immunosenescence
  - B and T cell responses in aged individual
  - Characterization of intrinsic properties of T cell subsets in elderly individuals
  - Immunometabolic properties of immune cells in elderly individuals
  - SARS-CoV2 specific primary responses in subjects of different age groups
- Vaccine development against tumours and infectious diseases
  - Preclinical studies on vaccines against HIV-AIDS, HSV-1 and HSV-2
  - Preclinical studies on the use of Tat as adjuvant in vaccination settings
  - Identification of new adjuvant to enhance the priming of CD8<sup>+</sup> T cells in against tumours and viral pathogens
  - Study of naïve CD8<sup>+</sup> and CD4<sup>+</sup> T cells features in physiological and pathological contexts: metabolism, functionality, capability to generate effector and memory responses
  - Identification of new adjuvants to be used for vaccination of elderly subjects
- Role of metabolism on immunopathogenesis and immune control of infectious diseases
  - Metabolic bases of immune response
  - Immunometabolic properties of T cells of elderly patients
  - Immunometabolic properties of T cells of HIV-infected patients

#### 4. Professional Skills

---

- Cell culture: growing mammalian cells in vitro, assessing cell proliferation, FACS analysis, generating CTL cultures, stimulating memory T cells.
- In vitro priming of naïve T cells
- Flow cytometry: surface, intracellular, intranuclear and phosphoflow staining
- Biochemistry and molecular biology techniques: Western-blot, protein purification, proteases assay, DNA and RNA extraction, PCR, qPCR, retrotranscription.
- Immunological assays: Detection of cytokine release (ELISpot, intracellular staining, Bioplex), evaluation of antibody titers (IgG, IgM, IgA ELISA assays), immunophenotyping and analysis of epitope-specific CD8<sup>+</sup> T cells.
- Assessment of cellular metabolism
- Animal Handling: mice immunization, necropsy, collection of sera and mucosal secretions.
- Designing independently *in vitro* and *in vivo* experimental protocols.
- Performing statistical analysis of results: groups comparison with parametrical and non-parametrical statistic test, linear regression.
- Other skills
 

Language	Italian (native), English (Proficient), French (Independent)
----------	--

Software      Graphpad Prism, BD FACSDiva, FlowJo Software

---

## 5. Publications

---

- 1) Primary immune responses are negatively impacted by persistent herpesvirus infections in older people: results from an observational study on healthy subjects and a vaccination trial on subjects aged more than 70 years old.  
**Nicoli F**, Clave E, Wanke K, von Braun A, Bondet V, Alanio C, Douay C, Baque M, Lependu C, Marconi P, Stiasny K, Heinz FX, Muetsch M, Duffy D, Boddaert J, Sauce D, Toubert A, Karrer U, Appay V.  
EBioMedicine. 2022 Jan 31;76:103852. doi: 10.1016/j.ebiom.2022.103852. Online ahead of print.
- 2) Possible effects of sirolimus treatment on the long-term efficacy of COVID-19 vaccination in patients with  $\beta$ -thalassemia: A theoretical perspective.  
Zurlo M, **Nicoli F**, Borgatti M, Finotti A, Gambari R.  
Int J Mol Med. 2022 Mar;49(3):33. doi: 10.3892/ijmm.2022.5088. Epub 2022 Jan 21.
- 3) Altered Basal Lipid Metabolism Underlies the Functional Impairment of Naive CD8<sup>+</sup> T Cells in Elderly Humans.  
**Nicoli F**, Cabral-Piccin MP, Papagno L, Gallerani E, Fusaro M, Folcher V, Dubois M, Clave E, Vallet H, Frere JJ, Gostick E, Llewellyn-Lacey S, Price DA, Toubert A, Dupré L, Boddaert J, Caputo A, Gavioli R, Appay V.  
J Immunol. 2022 Feb 1;208(3):562-570. doi: 10.4049/jimmunol.2100194. Epub 2022 Jan 14.
- 4) Impaired Priming of SARS-CoV-2-Specific Naive CD8<sup>+</sup> T Cells in Older Subjects.  
Gallerani E, Proietto D, Dallan B, Campagnaro M, Pacifico S, Albanese V, Marzola E, Marconi P, Caputo A, Appay V, Gavioli R, **Nicoli F** (2021) Corresponding author  
Frontiers in Immunology, 12, 693054
- 5) Use of a Novel Peptide Welding Technology Platform for the Development of B- and T-Cell Epitope-Based Vaccines.  
**Nicoli F**, Pacifico S, Gallerani E, Marzola E, Albanese V, Finessi V, Llewellyn-Lacey S, Price DA, Appay V, Marconi P, Guerrini R, Caputo A, Gavioli R (2021)  
Vaccines, 19:526.
- 6) Old and new coronaviruses in the elderly.  
**Nicoli F**, Paudel D, Solis-Soto MT (2021) Corresponding author  
Aging (Albany NY), 13:12295-12296.
- 7) Guidelines for the use and interpretation of assays for monitoring autophagy (4th edition)  
Klionsky et al, (2021)  
Autophagy, 17:1-382
- 8) Age-related decline of de novo T-cell responsiveness as a cause of COVID-19 severity.  
**Nicoli F**, Soli-Soto MT, Paudel D, Marconi P, Gavioli R, Appay V, Caputo A (2020) Corresponding author  
GeroScience, 42:1015-1019

- 9) The TLR9 ligand CpG ODN 2006 is a poor adjuvant for the induction of de novo CD8<sup>+</sup> T-cell responses in vitro.  
Papagno L, Kuse N, Lissina A, Gostick E, Price DA, Appay V, **Nicoli F.** (2020) Corresponding author  
Sci Rep, 10:11620
- 10) The Tat protein of HIV-1 prevents the loss of HSV-specific memory adaptive responses and favors the control of viral reactivation.  
**Nicoli F,** Gallerani E, Sicurella M, Pacifico S, Cafaro A, Ensoli B, Marconi P, Caputo A, Gavioli R. (2020)  
Corresponding author  
Vaccines, 8:E274
- 11) Impact of IgA isoforms on their ability to activate dendritic cells and to prime T cells.  
Gayet R, Michaud E, **Nicoli F,** Chanut B, Paul M, Rochereau N, Guillon C, He Z, Papagno L, Bioley G, Corthesy B, Paul S. (2020)  
Eur J Immunol, online ahead of print
- 12) A new approach to UV protection by direct surface functionalization of TiO<sub>2</sub> with the antioxidant polyphenol dihydroxyphenyl benzimidazole carboxylic acid.  
Battistin M, Dissette V, Bonetto A, Durini E, Manfredini S, Marcomini A, Casagrande E, Brunetta A, Ziosi P, Molesini S, Gavioli R, **Nicoli F,** Vertuani S, Baldisserotto A. (2020)  
Nanomaterials, 10:231
- 13) HPV-specific systemic antibody responses and memory B cells are independently maintained up to 6 years and in a vaccine-specific manner following immunization with Cervarix and Gardasil in adolescent and young adult women in vaccination programs in Italy.  
**Nicoli F,** Mantelli B, Gallerani E, Telatin V, Bonazzi I, Marconi P, Gavioli R, Gabrielli L, Lazzarotto T, Barzon L, Palù G, Caputo A. (2020)  
Vaccines, 8:26
- 14) Relationship between vaccination and nutritional status in children: analysis of recent Demographic and Health Surveys.  
Solis-Soto MT, Paudel D, **Nicoli F.** (2020)  
Corresponding author  
Demographic Research, 42:1-14
- 15) Angry, hungry T-cells: how are T-cell responses induced in low nutrient conditions?  
**Nicoli F.** (2020)  
Corresponding author  
Immunometabolism, 2:e200004
- 16) Synthesis and characterization of new multifunctional self-boosted filters for UV protection: ZnO complex with dihydroxyphenyl benzimidazole carboxylic acid.  
Battistin M, Durini E, Dissette V, Bonetto A, Marcomini A, Casagrande E, Brunetta A, Ziosi P, Molesini A, Gavioli R, **Nicoli F,** Manfredini S, Vertuani S, Baldisserotto A. (2019)  
Molecules, 24:4546

- 17) In chronic hepatitis C infection, myeloid-derived suppressor cell accumulation and T cell dysfunctions revert partially and late after successful direct-acting antiviral treatment.  
Telatin V\*, **Nicoli F\***, Frasson C, Menegotto N, Barbaro F, Castelli E, Erne E, Palu G, Caputo A. (2019)  
**\*Shared first autorship**  
Front Cell Infect Microbiol, 9:190
- 18) Synthesis and biological activity of peptide  $\alpha$ -ketoamide derivatives as proteasome inhibitors.  
Pacifico S, Ferretti V, Albanese V, Fantinati A, Gallerani E, **Nicoli F**, Gavioli R, Zamberlan F, Preti D, Marastoni M. (2019)  
ACS Med Chem Lett, 10:1086-1092
- 19) The STING ligand cGAMP potentiates the efficacy of vaccine-induced CD8<sup>+</sup> T cells.  
Gutjahr A, Papagno L, **Nicoli F**, Kanuma T, Kuse N, Cabral-Piccin MP, Rochereau N, Gostick E, Lioux T, Perouzel E, Price DA, Takiguchi M, Verrier B, Yamamoto T, Paul S, Appay V. (2019)  
JCI Insight, 4:e125107
- 20) Naïve CD8<sup>+</sup> T-cells engage a versatile metabolic program upon activation in humans and differ energetically from memory CD8<sup>+</sup> T-cells.  
**Nicoli F**, Papagno L, Frere JJ, Cabral-Piccin MP, Clave E, Gostick E, Toubert A, Price DA, Caputo A, Appay V. (2018)  
Corresponding author  
Front Immunol, 9:2736
- 21) Harnessing the induction of CD8<sup>+</sup> T-cell responses through metabolic regulation by pathogen-recognition-receptor triggering in antigen presenting cells.  
**Nicoli F**, Paul S, Appay V. (2018)  
Corresponding author  
Front Immunol, 9:2372
- 22) The HIV-1 Tat protein affects human CD4<sup>+</sup> T-cell programming and activation, and favors the differentiation of naïve CD4<sup>+</sup> T cells.  
**Nicoli F**, Gallerani E, Sforza F, Finessi V, Chachage M, Geldmacher C, Cafaro A, Ensoli B, Caputo A, Gavioli R. (2018)  
AIDS, 32:575-581
- 23) Donation programme of returned medicines: role of donors and point of view of beneficiaries.  
**Nicoli F**, Paudel D, Bresciani G, Rodi D, Siniscalchi A. (2018)  
Corresponding author  
Int Health, 10:133-136
- 24) Cutting edge: a dual TLR2 and TLR7 ligand induces highly potent humoral and cell-mediated immune responses.  
Gutjahr A, Papagno L, **Nicoli F**, Lamoureux A, Vernejoul F, Lioux T, Gostick E, Price DA, Tiraby G, Perouzel E, Appay V, Verrier B, Paul S. (2017)

- 25) Immunological considerations regarding parental concerns on pediatric immunizations.  
**Nicoli F**, Appay V. (2017)  
Corresponding author  
Vaccine, 35:3012-3019
- 26) Association between different anti-Tat antibody isotypes and HIV disease progression: data from an African cohort.  
**Nicoli F**, Chachage M, Podola L, Clowes P, Bauer A, Mgaya O, Kowour D, Ensoli B, Cafaro A, Maboko L, Hoelscher M, Gavioli R, Saathoff M, Geldmacher C. (2016)  
Corresponding author  
BMC Infect Dis, 16:344
- 27) Systemic immunodominant CD8 responses with an effector-like phenotype are induced by intravaginal immunization with attenuated HSV vectors expressing HIV Tat and mediate protection against HSV infection.  
**Nicoli F**, Gallerani E, Skarlis C, Sicurella M, Cafaro A, Ensoli B, Caputo A, Marconi PC, Gavioli R. (2016)  
Vaccine, 34:2216-24
- 28) Bystander hyperactivation of preimmune CD8<sup>+</sup> T cells in chronic HCV patients.  
Alanio C, **Nicoli F**, Sultanik P, Flecken T, Perot B, Duffy D, Bianchi E, Lim A, Clave E, Buuren MM, Schnuriger A, Johnsson K, Boussier J, Garbarg-Chenon A, Bousquet L, Mottez E, Schumacher TN, Toubert A, Appay V, Heshmati F, Thimme R, Pol S, Mallet V, Albert ML. (2015)  
Elife, 4:e07916
- 29) Effects of different routes of administration on the immunogenicity of the Tat protein and a Tat-derived peptide vaccine.  
Finessi V\*, **Nicoli F\***, Gallerani E, Sforza F, Sicurella M, Cafaro A, Caputo A, Ensoli B, Gavioli R. (2015)  
**\*Shared first authorship.**  
Hum Vaccin Immunother, 11:1489-93
- 30) Different expression of Blimp-1 in HIV infection may be used to monitor disease progression and provide a clue to reduce immune activation and viral reservoirs.  
**Nicoli F**, Sforza F, Gavioli R. (2015)  
AIDS, 29:133-4
- 31) An attenuated Herpes simplex virus type 1 (HSV1) encoding the HIV-1 Tat protein protects mice from a deadly mucosal HSV1 challenge.  
Sicurella M, **Nicoli F**, Volpi I, Berto E, Gallerani E, Finessi V, Destro F, Triulzi C, Ensoli B, Manservigi R, Caputo A, Gavioli R, Marconi P. (2014)  
PLoS One, 9:e100844
- 32) HIV-1 Tat affects the programming and functionality of human CD8<sup>+</sup> T cells by modulating the expression of T-box transcription factors.  
Sforza F\*, **Nicoli F\***, Gallerani G, Finessi V, Reali E, Cafaro A, Caputo A, Ensoli B, Gavioli R. (2014)

**\*Shared first authorship**

AIDS, 28:1729-38

**33)** The HIV-1 Tat protein induces the activation of CD8<sup>+</sup> T cells and affects in vivo the magnitude and kinetics of antiviral responses.

**Nicoli F**, Finessi V, Sicurella M, Rizzotto L, Gallerani E, Destro F, Cafaro A, Marconi P, Caputo A, Ensoli B, Gavioli R. (2013)

PLoS One, 8:e77746

## 6. International Experiences

---

- Member of the Center of International Health – Ludwig Maximilians University – Munich – Germany (2013-present)
- Visiting Scientist at INSERM Unit 1135, Paris, France. Supervisor: Dr. Victor Appay (August 2019)
- Selected member of the Young Investigator Program: Elsevier and EJVC (2015-2017)
- Invited speaker at the symposium CIH-connect, at LMU, Munich (February 2016, February 2017 and January 2018)
- Co-chair at 10th Vaccine Congress, 4-7 September 2016, Amsterdam
- Post-doc at INSERM Unit 1135, Paris, France. Supervisor: Dr. Victor Appay (2015-2017)
- PhD in Medical research-International Health, Center of International Health – Ludwig Maximilians University– Munich – Germany (2010-2013)
- Research expedition at Mbeya Medical Research Center (MMRC), Mbeya, Tanzania. Aim: measure frequency and titers of anti-clade B and C Tat antibodies in HIV-chronically infected, therapy naïve, individuals and assess any potential relation between anti-Tat humoral response with progression to AIDS and HIV-related immune dysfunctions (2012).
- Member of the organizing committee of the international symposium: “Fighting the scourge of TB/HIV co-infection, are vaccines and novel diagnostics the solution?”, Munich (Germany), March 3<sup>rd</sup> 2012 (70 participants).
- Workshop “Infections and Immunity”, Mbeya Medical Research Center (MMRC), Mbeya, Tanzania (2011)

## 7. Conferences and invited seminars

---

COVID-19 situation in Italy

Public health dialogue (through webinar): International practices on response to Covid 19 pandemic, lessons learnt and recommendations. Nepal public health association, 4 July 2020

(invited presentation)

Metabolic control of T-cell responses

MSD 2020 meeting “Immunity and HIV infection”, Paris, France, 30-31 January 2020

(invited speaker)

Poor responsiveness of naïve CD8<sup>+</sup> T-cells from elderly individuals is associated to their altered basal metabolism

**Nicoli F**, Folcher V, Dubois M, Papagno L, Clave E, Vallet H, Frere JJ, Toubert A, Boddaert J, Caputo A, Gavioli R, Appay V

II Joint Meeting of the German Society for Immunology (DGfI) and the Italian Society of Immunology, Clinical Immunology and Allergology (SIICA), Munich, 10-13 September 2019

(oral presentation)

Metabolic properties of human naïve CD8<sup>+</sup> T cells

Pasteur Institute of Rome, Italy, 20 June 2019

(invited seminar)

Poor responsiveness of naïve CD8<sup>+</sup> T-cells from elderly individuals is associated to their altered basal metabolism

**Nicoli F**, Folcher V, Dubois M, Papagno L, Clave E, Vallet H, Frere JJ, Toubert A, Boddaert J, Caputo A, Gavioli R, Appay V

7th European Seminar in Virology, Padua, Italy, 14-16 June 2019

(oral presentation)

Premature accelerated ageing in young HIV-infected individuals: global research initiative

**Nicoli F.**

Conference on tropical medicine and global health, CTM 2019, 4-6 April 2019, Munich, Germany

(oral presentation)

Successful direct-acting antiviral treatment of chronic hepatitis C reverts myeloid-derived suppressor cell accumulation and T cell dysfunctions only partially

**Nicoli F**, Telatin V, Frasson C, Menegotto N, Barbaro F, Castelli E, Erne E, Palù G, Caputo A.

SIV-ISV 2018, Roma, Italia, 28-30 November 2018.

(oral presentation)

Cooperative control of human naïve CD8<sup>+</sup> T cell priming by autophagy and mTOR-dependent glycolysis

**Nicoli F**, Papagno L, Caputo A, Appay V.

European Congress of Immunology, Amsterdam, The Netherlands, 2-5 September 2018

(oral presentation)

The HIV-1 Tat protein affects human CD4<sup>+</sup> T-cell programming and activation, and favors the differentiation of naïve CD4<sup>+</sup> T cells

**Nicoli F**, Gallerani E, Sforza F, Finessi V, Chachage M, Geldmacher C, Cafaro A, Ensoli B, Gavioli R, Caputo A.

6th European seminar in virology (EUSEV), Bertinoro, Italy, 22-24 June 2018

(oral presentation)

Cooperative control of human naïve CD8<sup>+</sup> T cell priming by autophagy and mTOR-dependent glycolysis

**Nicoli F**, Papagno L, Caputo A, Appay V.

Young minds at work, Desenzano, Italy, 20-21 October 2017

(oral presentation)

HIV-1 Tat protein induces naïve CD4<sup>+</sup> T cells proliferation, activation and differentiation

**Nicoli F**, Gallerani E, Sforza F, Finessi V, Chachage M, Geldmacher C, Cafaro A, Ensoli B, Gavioli R, Caputo A

SIV (Italian Society of Virology) national congress, Milan, Italy, 25-28 June 2017

Cooperative control of human naïve CD8<sup>+</sup> T cell priming by autophagy and mTOR-dependent glycolysis

**Nicoli F**, Papagno L, Appay V.

Keystone symposia, Integrating Metabolism and Immunity, Dublin, Ireland, 29 May – 2 June 2017

Human naïve CD8<sup>+</sup> T cells display low metabolic activity but engage efficient glycolysis upon antigen specific priming

**Nicoli F**, Papagno L, Appay V.

SFI (French Society of Immunology) Annual meeting, Paris, France, 28-30 November 2016

Priming T cell responses in old age

Unité Mixte de Recherche (UMR) 1064, Nantes, Francia, September 29, 2016

(invited seminar)

Dual effect of TLR9L on the priming of human CD8<sup>+</sup> T cell responses

**Nicoli F**, Papagno L, Lissinia A, Appay V.

10<sup>th</sup> Vaccine Congress, Amsterdam, The Netherlands, 4-7 September 2016

The HIV Tat protein favors the activation of CD8 T cells

Sforza F, **Nicoli F**, Finessi F, Gallerani E, Caputo A and Gavioli R.

57<sup>th</sup> National Meeting of the Italian Society of Biochemistry and Molecular Biology, Ferrara, Italy, September 2013

The HIV Tat protein favors the activation of CD8 T cells thus contributing to HIV-related immune dysfunctions

Sforza F, **Nicoli F**, Finessi F, Gallerani E, Caputo A and Gavioli R.

15<sup>th</sup> International Congress of Immunology (ICI), Milan, Italy, August 2013

Prevalence, clade-cross reactivity and association with CD4 count of different classes of anti-Tat antibodies in an African Cohort of HIV infected ART naïve subjects

**Nicoli F**, Chachage M, Gallerani E, Bauer A, Saathoff E, Clowes P, Geldmacher C.

Italian Conference on AIDS and Retrovirus, Turin, Italy, May 2013

Study of the effects of the Tat protein of HIV-1 on memory cells and on the control of viral reactivation in in vivo models of latent infections.

**Nicoli F**, Finessi V, Montagnani A, Gallerani E, Sicurella M, Destro F, Sforza F, Marconi P, Caputo A, Gavioli R.

DTG Conference (German Society for Tropical Medicine and International Health), Heidelberg, Germany – March 2012

The HIV-1 Tat protein favors antigen-specific activation of cytotoxic T lymphocytes

**Nicoli F**, Finessi V, Sforza F, Destro F, Sicurella M, Caputo A, Gavioli R.

FEBS JOURNAL Volume: 278 Special Issue: SI Supplement: 1 Pages: 297-298, June 2011

Immunogenicity of HSV-1 vectors expressing the HIV-1 Tat protein.

Sicurella M, Berto E, **Nicoli F**, Gallerani E, Destro F, Sforza F, Caputo A, Marconi P, Gavioli R. Nuovi itinerari di virologia clinica: bagagli di esperienze a confronto. Società Italiana di Virologia. Costa Brada – Gallipoli (LE), September 2010

## 8. Projects

### As Principal Investigator (PI)

Title	Funding	Period
Identification of Causes, Reasons And Solutions for High COVID-19 mortality rate in AGEd populations (CRASH CAGE)	German Academic Exchange Service (DAAD) - Center of International Health - Ludwig Maximilian University (CIH-LMU) (Germania)	2021
Identification of Causes, Reasons And Solutions for High COVID-19 mortality rate in AGEd populations (CRASH CAGE)	German Academic Exchange Service (DAAD) - Center of International Health - Ludwig Maximilian University (CIH-LMU) (Germania)	2020
Understanding AIDS worldwide studying immunopathogenesis and correlates of protection in HIV infection caused by different subtypes (UAW)	German Academic Exchange Service (DAAD) - Center of International Health - Ludwig Maximilian University (CIH-LMU) (Germania)	2019
Premature accelerated Ageing in Young HIV-infected Individuals: Global research initiative (PLAY HIGH)	German Academic Exchange Service (DAAD) - Center of International Health - Ludwig Maximilian University (CIH-LMU) (Germania)	2018

### As Co-PI or participant:

Title	Funding	Period	PI
Knowledge Café	German Academic Exchange Service (DAAD) - Center of International Health - Ludwig Maximilian University (CIH-LMU) (Germania)	2020	Dr.ssa Maria Teresa Solis-Soto (Universidad San Francisco Xavier de Chuquisaca, Bolivia)
Vaccines and Infectious diseases in the Ageing population (VITAL)	Innovative Medicine Initiative (IMI, H2020) EU	2019-2023	Prof. Riccardo Gavioli, (Università di Ferrara) Dr.ssa Debbie Van Baarle (RIVM, Paesi Bassi)
T cell lipid metabolism as marker of HIV disease progression	Gilead Fellowship Program	2019-2021	Prof.ssa Antonella Caputo (Università di Ferrara)
Valutazione delle risposte immunitarie protettive contro West Nile Virus	AVIS	2020	Prof. Riccardo Gavioli (Università di Ferrara)
Development of strategies to increase vaccine efficacy in elderly people	Progetto Galileo, Università Italo-Francese/ Université Franco-Italienne	2018-2019	Prof.ssa Antonella Caputo (Università di Ferrara)

			Dr. Victor Appay (CIMI, Francia)
Priming T cell responses in old age	Agence Nationale de la Recherche (Francia)	2015-2017	Dr. Victor Appay (CIMI, Francia)
Demographic and Health Survey	CIH-LMU (Germania)	2016	Dr.ssa Maria Teresa Solis-Soto (Universidad San Francisco Xavier de Chuquisaca, Bolivia)
Connecting CIH alumni with current scholars for better results and networking	CIH-LMU (Germania)	2015	Dr. Deepak Paudel (Save the Children, Nepal)
Role of Tat in the establishment and maintenance of viral reservoirs: implications for new strategies toward HIV eradication	Gilead Fellowship Program	2013-2014	Prof.ssa Antonella Caputo (Università di Padova)
Ruolo di antigeni di HIV1 nell'attivazione dei linfociti umani	Gilead Fellowship Program	2012-2013	Prof. Riccardo Gavioli (Università di Ferrara)
In vitro and in vivo immunomodulatory effects of the HIV-1 Tat antigen for the development of Tat-based vaccines	Programma Nazionale AIDS	2010-2012	Prof. Riccardo Gavioli (Università di Ferrara)

## 9. Awards and memberships

2019-present	Member of the Italian Society of Immunology (SIICA)
2019-present	Member della Italian Society of Virology(SIV-ISV)
2019	Scholarship from the Istituto Universitario di Studi Superiori IUSS-Ferrara 1391
2018	Travel scholarship, 6 <sup>th</sup> European seminar in virology (EUSEV)
2016-present	Member of the European academy of allergy & clinical immunology
2016-2017	Member of the French Society of Immunology (SFI)
2015-present	Selected for the Young Investigator Program, managed by the journal Vaccine (Elsevier) and by Edward Jenner Vaccine Society (EJVC).
2014-present	Member of the editorial board of Ad Astra, multidisciplinary journal , Universidad San Francisco Xavier de Chuquisaca, Bolivia.
2013	Immunotools special award
October 2012	Travel scholarship: Italian Centre of Biotechnology
September 2012	Travel scholarship: Spinner (project funded by Emilia Romagna Region and EU)
March-July 2012	Teaching and research assistantship: LMU University (Munich) and German

Invited regularly to review manuscripts for journals such as Journal of Cell Physiology, Journal of Leukocyte Biology, Theranostic, Frontiers in Pharmacology, Expert Review Vaccines, Immunoassays and Immunochemistry, Frontiers in Immunology, AIDS, Journal of Applied Microbiology, Clinical and Translational Medicine, Viruses, Scientific Reports, Vaccine, Future Microbiology, Clinical and Experimental Immunology, European Journal of Immunology, WHO bulletin, AIDS Research and Human Retroviruses, GeroScience.

## 10. Teaching activity

---

2021-	Course of Biochemistry of Nutrition, University of di Ferrara, Italy
2019 – 2020	Lecturer for the PhD in “Ecological minds”, University of di Ferrara, Italy
2019 – 2020	Seminars in Microbiology, Bachelor degree in Biological Sciences, University of di Ferrara, Italy
2019 – 2020	Tutor for students in Pharmacy and Medicinal Chemistry, University of di Ferrara, Italy
2019	Biochemistry of Nutrition, specialist degree in Pharmacy, University of di Ferrara, Italy
2018	Seminars in Microbiology, Bachelor degree in Biotechnology, University of di Ferrara, Italy
2016 – 2018	Organizer and lecturer for the workshop “Connect”, for PhD students in International Health, CIH-LMU, Munich, Germany
2012 – 2018	Lecturer for the University of permanent Education, Ferrara, Italy Permanente (UTEF)
2012 – 2020	Supervisor of the following students
	<ul style="list-style-type: none"> <li>• Specialistic degree in Pharmacy, University of Ferrara, Italy: 7 students</li> <li>• Specialistic degree in Medicinal Chemistry, University of Ferrara, Italy: 3 students</li> <li>• Bachelor degree in Biotechnology, University of Ferrara, Italy: 1 student</li> <li>• Master degree in Biomolecular and Cellular Sciences, University of Ferrara, Italy: 1 student</li> <li>• Diplôme Universitaire de Soins Palliatifs – DUSP, Diplôme d’étude universitaire scientifique et technique de BIO-INDUSTRIES et BIOTECHNOLOGIES, Paris Sud University, France: 1 student</li> </ul>

## 11. Interests

---

- Develop a research career in the field of infectious diseases, immunology and vaccinology. Interested in Health-related problems in developing world.
- From 2005 to date I’m boy-scout educator of boys and girls from 8 to 19 years old.
- Co-founder of Farmacia Senza Frontiere, a student association interested in access to medicines and research in poverty diseases.
- Two stays in South Africa (Kakamas) for a social development project
- Volunteer work after earthquakes in L’Aquila (2009) and Ferrara (2012). Certificate of merit from Italian civil defence

## 12. References available on request to:

---

- Prof. Riccardo Gavioli, University of Ferrara (gvr@unife.it)
- Prof. Peggy Marconi, University of Ferrara (mcy@unife.it)

- Dr. Victor Appay, INSERM U1135, CIMI-Paris (victor.appay@upmc.fr)
- Prof. Antonella Caputo, University of Padova (antonella.caputo@unipd.it)
- Prof. Thomas Brocker, LMU University, Munich (tbrocker@med.uni-muenchen.de)
- Dr. Barbara Ensoli, National AIDS center, Rome (barbara.ensoli@iss.it)
- Dr. Christof Geldmacher, LMU University, Munich (geldmacher@lrz.uni-muenchen.de)