



Matteo Fracella

Date of birth: 20/04/1997 | Nationality: Italian | Email address: matteo.fracella@uniroma1.it

WORK EXPERIENCE

31/10/2021 – CURRENT Rome, Italy

PHD IN "MEDICINA SPERIMENTALE" DEPARTMENT OF MOLECULAR MEDICINE, SAPIENZA UNIVERSITY OF ROME, ITALY.

2019 – 2021 Roma, Italy

LABORATORY TRAINING SAPIENZA UNIVERSITY OF ROME, ITALY

Training for experimental Master's Degree thesis at Department of Molecular Medicine, Laboratory of Virology, SAPIENZA, Rome. Title of thesis: " Infezione di MmuPV1 su cheratinociti di topo come modello per lo studio di geni associati all'Interferon nel controllo della replicazione del papillomavirus ".

2015 – 2016 Lecce, Italy

LABORATORY TRAINING UNIVERSITÀ DEL SALENTO, ITALY

Training for experimental Bachelor's Degree thesis at Anatomia Comparata e Citologia, Università del Salento, Lecce. Title of thesis: "Vescicole extracellulari: attività immuno-modulatoria dei macrofagi in condizioni di stress Iperglicemia"

EDUCATION AND TRAINING

2020 Italy

MASTER'S DEGREE - "GENETICA E BIOLOGIA MOLECOLARE" (110/110 E LODE) Sapienza University of Rome, Italy

2018 Lecce, Italy

BACHELOR'S DEGREE - "SCIENZE BIOLOGICHE" (108/110) Università del Salento, Italy

2015 Nardò, Italy

HIGH SCHOOL DIPLOMA (100/100) Liceo Scientifico Galileo Galilei, Nardò (LE)

LANGUAGE SKILLS

Mother tongue(s): **ITALIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
INGLESE	B2	B2	B2	B2	B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

Microsoft Word | Microsoft Excel | Google Drive | Microsoft Powerpoint

● **COMMUNICATION AND INTERPERSONAL SKILLS**

Interpersonal skills

Good interpersonal skills acquired during laboratory training and as a PhD student during teaching activities to Master's Degree students

● **MAIN RESEARCH TOPICS**

Scientific topics

Host-virus interaction; antiviral immunity with focused attention to IFN pathways and cell-mediated responses in acute and chronic viral infection; principal viruses investigated: human papillomavirus (HPV); human immunodeficiency virus (HIV); respiratory viruses [e.g. respiratory syncytial virus (RSV), rhinovirus (HRV) and coronaviruses, including SARS-CoV-2].

● **PUBLICATIONS**

2022

Sorrentino L, Silvestri V, Oliveto G, Scordio M, Frasca F, Fracella M, Bitossi C, D'Auria A, Santinelli L, Gabriele L, Pierangeli A, Mastroianni CM, d'Ettorre G, Antonelli G, Caruz A, Ottini L, Scagnolari C. Distribution of Interferon Lambda 4 Single Nucleotide Polymorphism rs11322783 Genotypes in Patients with COVID-19. *Microorganisms*. 2022 Feb 4;10(2):363. doi: 10.3390/microorganisms10020363. PMID: 35208821; PMCID:PMC8876137.

2022

Pierangeli A, Gentile M, Oliveto G, Frasca F, Sorrentino L, Matera L, Nenna R, Viscido A, Fracella M, Petrarca L, D'Ettorre G, Ceccarelli G, Midulla F, Antonelli G, Scagnolari C. Comparison by Age of the Local Interferon Response to SARS-CoV-2 Suggests a Role for IFN- ϵ and - ω . *Front Immunol*. 2022 Jul 12; 13:873232. doi: 10.3389/fimmu.2022.873232.

2022

Bitossi C, Viscido A, Prezioso C, Brazzini G, Trancassini M, Borrazzo C, Passerini S, Frasca F, Scordio M, Sorrentino L, Oliveto G, Fracella M, D'Auria A, Selvaggi C, Cimino G, Midulla F, Pierangeli A, Antonelli G, Moens U, Pietropaolo V, Scagnolari C. High prevalence of Merkel cell polyomavirus is associated with dysregulation in transcript levels of TLR9 and type I IFNs in a large cohort of CF patients from the Italian (Lazio) reference center for cystic fibrosis. *Microb Pathog*.169:105644.

2022

Fracella M, Oliveto G, Sorrentino L, Roberto P, Cinti L, Viscido A, Di Lella FM, Giuffrè F, Gentile M, Pietropaolo V, Prezioso C, Palma E, Recine N, Palaia I, Scagnolari C, Antonelli G, Pierangeli A. Common Microbial Genital Infections and Their Impact on the Innate Immune Response to HPV in Cervical Cells. *Pathogens*. 2022 Nov 16;11(11):1361. doi: 10.3390/pathogens11111361.

2023

Mori M, Quaglio D, Calcaterra A, Ghirga F, Sorrentino L, Cammarone S, Fracella M, D'Auria A, Frasca F, Criscuolo E, Clementi N, Mancini N, Botta B, Antonelli G, Pierangeli A, Scagnolari C. Natural Flavonoid Derivatives Have Pan-Coronavirus Antiviral Activity. *Microorganisms*. 2023 Jan 25;11(2):314. doi: 10.3390/microorganisms11020314.

2023

Sorrentino L, Fracella M, Frasca F, D'Auria A, Santinelli L, Maddaloni L, Bugani G, Bitossi C, Gentile M, Ceccarelli G, Turriziani O, Mastroianni CM, Antonelli G, d'Ettorre G, Pierangeli A, Scagnolari C. Alterations in the Expression of IFN Lambda, IFN Gamma and Toll-like Receptors in Severe COVID-19 Patients. *Microorganisms*. 2023 Mar 8;11(3):689. doi: 10.3390/microorganisms11030689.

2023

Santinelli L, Lazzaro A, Sciarra F, Maddaloni L, Frasca F, Fracella M, Moretti S, Borsetti A, Bugani G, Alessandri F, Zullino V, Ruberto F, Pugliese F, Sorrentino L, Gianfrilli D, Isidori A, Venneri MA, Mastroianni CM, Ceccarelli G, d'Ettorre G. Cellular Immune Profiling of Lung and Blood Compartments in Patients with SARS-CoV-2 Infection. *Pathogens*. 2023 Mar 11;12(3):442. doi: 10.3390/pathogens12030442.

2023

Sorrentino L, Toscanelli W, Fracella M, De Angelis M, Frasca F, Scagnolari C, Petrarca L, Nenna R, Midulla F, Palamara AT, Nencioni L, Pierangeli A. NRF2 Antioxidant Response and Interferon-Stimulated Genes Are Differentially Expressed in Respiratory-Syncytial-Virus- and Rhinovirus-Infected Hospitalized Children. *Pathogens*. 2023 Apr 9;12(4):577. doi: 10.3390/pathogens12040577.

2023

Fracella M, Scordio M, Sorrentino L, D'Auria A, Ingenito R, Gentile M, Pierangeli A, Antonelli G, Scagnolari C, Frasca F. In Vitro Virucidal Effects of Ultraviolet Light Prototypes on RNA viruses. *New Microbiol*. 2023 May;46(2):161-169. PMID: 37247237.

2023

Faja F, Pallotti F, Bianchini S, Buonacquisto A, Cicolani G, Conflitti AC, Fracella M, Cavallari EN, Sciarra F, Pierangeli A, Paoli D, Lenzi A, Antonelli G, Lombardo F, Gianfrilli D. Molecular study of the presence and transcriptional activity of HPV in semen. *J Endocrinol Invest*. 2023 Aug 16. doi: 10.1007/s40618-023-02167-4.

2023

Maddaloni L, Santinelli S, Bugani G, Cacciola E, Lazzaro A, Lofaro C, Caiazzo S, Frasca F, Fracella M, Ajassa C, Leanza C, Napoli A, Cinti L, Gaeta A, Antonelli G, Ceccarelli G, Mastroianni CM, Scagnolari C, d'Ettorre G. Differential expression of Type I interferon and inflammatory genes in SARS-CoV-2-infected patients treated with monoclonal antibodies. *Immun Inflamm Dis*. 2023;11:e968. <https://doi.org/10.1002/iid3.968>

2023

Pierangeli A, Nenna R, Fracella M, Scagnolari C, Oliveto G, Sorrentino L, Frasca F, Conti MG, Petrarca L, Papoff P, Turriziani O, Antonelli G, Stefanelli P, Palamara AT, Midulla F. Genetic diversity and its impact on disease severity in respiratory syncytial virus subtype-A and -B bronchiolitis before and after pandemic restrictions in Rome. *J Infect*. 2023 Oct;87(4):305-314. doi: 10.1016/j.jinf.2023.07.008.

2023

Filardo S, Di Pietro M, Bozzuto G, Fracella M, Bitossi C, Molinari A, Scagnolari C, Antonelli G, Sessa R. Interferon- ϵ as potential inhibitor of *Chlamydia trachomatis* infection. *Microb Pathog*. 2023 Dec;185:106427. doi: 10.1016/j.micpath.2023.106427. Epub 2023 Oct 27. PMID: 37890679.

2024

Fracella M, Oliveto G, Roberto P, Cinti L, Gentile M, Coratti E, D'Ettorre G, Cavallari EN, Romano F, Santinelli L, Maddaloni L, Frasca F, Scagnolari C, Antonelli G, Pierangeli A. The Epidemiology of Anal Human Papillomavirus (HPV) in HIV-Positive and HIV-Negative Women and Men: A Ten-Year Retrospective Observational Study in Rome (Italy). *Pathogens*. 2024 Feb 11;13(2):163. doi: 10.3390/pathogens13020163. PMID: 38392901; PMCID: PMC10892302.

2024

Fracella M, Mancino E, Nenna R, Virgillito C, Frasca F, D'Auria A, Sorrentino L, Petrarca L, La Regina D, Matera L, Di Mattia G, Caputo B, Antonelli G, Pierangeli A, Viscidi RP, Midulla F, Scagnolari C. Age-related transcript changes in type I interferon signaling in children and adolescents with long COVID. *Eur J Immunol.* 2024 Mar 24:e2350682. doi: 10.1002/eji.202350682. Epub ahead of print. PMID: 38522030.

● CONFERENCES AND SEMINARS

LISBON

2022 - Presenting author - (Oral Presentation) 32° European Congress of Clinical Microbiology and Infectious Diseases. TITLE: How bacterial vaginosis influence the innate immune response to HPV in cervical cells.

Matteo Fracella, Mirko Scordio, Leonardo Sorrentino, Federica Frasca, Giuseppe Oliveto, Agnese Viscido, Federica Di Lella, Massimo Gentile, Carolina Scagnolari, Valeria Pietropaolo, Nadia Recine, Guido Antonelli, Alessandra Pierangeli.

RIMINI

2022 - Presenting author - (Oral Presentation), XLIX CONGRESSO NAZIONALE AMCLI. TITLE: Dysregulation of IFN pathways in anal cells from HIV-1 men during HPV infection.

Matteo Fracella, Mirko Scordio, Leonardo Sorrentino, Federica Frasca, Giuseppe Oliveto, Agnese Viscido, Letizia Santinelli, Eugenio Nelson Cavallari, Gabriella D'Ettore, Paolo Gozzo, Guido Antonelli, Carolina Scagnolari, Alessandra Pierangeli.

BERGAMO

2022 - Presenting author - (Oral Presentation) 14° CONGRESSO ITALIAN CONFERENCE ON AIDS AND ANTIVIRAL RESEARCH (ICAR). TITLE: Alteration of IFN pathways in anal cells from HIV-1/HPV co-infected men

Matteo Fracella, Mirko Scordio, Leonardo Sorrentino, Federica Frasca, Giuseppe Oliveto, Agnese Viscido, Letizia Santinelli, Eugenio Nelson Cavallari, Gabriella D'Ettore, Paolo Gozzo, Guido Antonelli, Carolina Scagnolari, Alessandra Pierangeli.

NAPOLI

2022 - Presenting author - (Oral Presentation) 6° NATIONAL CONGRESS OF THE ITALIAN SOCIETY FOR VIROLOGY. TITLE: Molecular epidemiology of RSV strains causing an unusual peak of hospitalization in autumn 2021

Matteo Fracella, Leonardo Sorrentino, Carolina Scagnolari, Giuseppe Oliveto, Federica Frasca, Laura Petrarca, Raffaella Nenna, Fabio Midulla, Guido Antonelli, Alessandra Pierangeli.

NAPOLI

2022 - Presenting author - (Poster presentation) 50° CONGRESSO NAZIONALE DELLA SOCIETA' ITALIANA DI MICROBIOLOGIA. TITLE: Study of immunological parameters associated with Long COVID in children/adolescents

Matteo Fracella, Leonardo Sorrentino, Federica Frasca, Mirko Scordio, Giuseppe Oliveto, Agnese Viscido, Camilla Bitossi, Alessandra D'auria, Stefania Rossi, Lucia Gabriele, Anna R. Ciccaglione, Roberto Bruni, Laura Petrarca, Enrica Mancino, Raffaella Nenna, Fabio Midulla, Guido Antonelli, Alessandra Pierangeli, Carolina Scagnolari.

ROMA

2022 - Presenting author - (Oral Presentation) 21° Congresso SIMIT-Società Italiana di Malattie Infettive e Tropicali. TITLE: Inflammasome but not type III Interferon response is increased in children/adolescents with long COVID

Matteo Fracella, Leonardo Sorrentino, Federica Frasca, Mirko Scordio, Giuseppe Oliveto, Carla Selvaggi, Agnese Viscido, Camilla Bitossi, Alessandra D'auria, Laura Petrarca, Enrica Mancino, Raffaella Nenna, Fabio Midulla, Guido Antonelli, Alessandra Pierangeli, Carolina Scagnolari

WASHINGTON D.C.

2023 - Presenting author - (Oral Presentation) 35TH INTERNATIONAL PAPILLOMAVIRUS CONFERENCE-IPVC. TITLE: KINETICS OF EXPRESSION OF VIRAL MRNA AND U-ISGF3-REGULATED INTERFERON STIMULATED GENES IN MPEK.BL6 KERATINOCYTES INFECTED WITH MMUPV1

Matteo Fracella, Richard Roden, Alessandra Pierangeli, Mirko Scordio, Leonardo Sorrentino, Jiafen Hu, Federico De Marco, Guido Antonelli, Carolina Scagnolari, Raphael Viscidi.

COPENAGHEN

2023 - Presenting author - (Oral Presentation) 33° EUROPEAN CONGRESS OF CLINICAL MICROBIOLOGY AND INFECTIOUS DISEASES (ECCMID). TITLE: ALTERATION OF SERUM CYTOKINE PROFILE IN CHILDREN WITH LONG COVID

Matteo Fracella, Leonardo Sorrentino, Federica Frasca, Mirko Scordio, Giuseppe Oliveto, Alessandra D'Auria, Stefania Rossi, Lucia Gabriele, Anna R. Ciccaglione, Roberto Bruni, Enrica Mancino, Gabriella D'Ettore, Guido Antonelli, Alessandra Pierangeli, Carolina Scagnolari

BARI

2023 - Presenting author - (Poster Presentation) 15° CONGRESSO ITALIAN CONFERENCE ON AIDS AND ANTIVIRAL RESEARCH (ICAR). TITLE: DISTINCT MUCOSAL INTERFERON RESPONSE TO MPXV, HIV AND HPV INFECTIONS IN ANAL CELLS FROM MSM.

Matteo Fracella, Luca Maddaloni, Alessandra D'Auria, Federica Frasca, Letizia Santinelli, Camilla Bitossi, Nelson Cavallari, Paola Mazzetti, Alessandra Pierangeli, Claudio Maria Mastroianni, Mauro Pistello, Guido Antonelli, Gabriella D'Ettore, Carolina Scagnolari.

BRESCIA

2023 - Presenting author - (Oral Presentation) 7th NATIONAL CONGRESS OF THE ITALIAN SOCIETY FOR VIROLOGY One Virology One Health (SIV). TITLE: CHARACTERIZATION OF TYPE I/III INTERFERON RESPONSE TO MPXV, HIV AND HPV INFECTIONS IN ANAL MUCOSA OF MSM.

Matteo Fracella, Luca Maddaloni, Alessandra D'Auria, Federica Frasca, Letizia Santinelli, Camilla Bitossi, Nelson Cavallari, Paola Mazzetti, Alessandra Pierangeli, Claudio Maria Mastroianni, Mauro Pistello, Guido Antonelli, Gabriella D'Ettore, Carolina Scagnolari.

BRESCIA

2023 - Presenting author - (Poster presentation), 7th NATIONAL CONGRESS OF THE ITALIAN SOCIETY FOR VIROLOGY(SIV). TITLE: MOLECULAR AND CLINICAL ANALYSIS OF RSV-POSITIVE BRONCHIOLITIS CASES BEFORE AND AFTER PANDEMIC RESTRICTIONS, IN ROME.

Matteo Fracella, Carolina Scagnolari, Giuseppe Oliveto, Leonardo Sorrentino, Martina Ardone, Federica Frasca, Luigi Matera, Maria Giulia Conti, Laura Petrarca, Raffaella Nenna, Fabio Midulla, Paola Papoff, Ombretta Turriziani, Guido Antonelli, Alessandra Pierangeli.

CAGLIARI

2023 - Presenting author - (Poster presentation) 51° CONGRESSO NAZIONALE SOCIETÀ ITALIANA MICROBIOLOGIA (SIM). TITLE: DIFFERENTIAL TYPE I INTERFERON EXPRESSION BETWEEN CHILDREN AND ADOLESCENTS WITH LONG COVID.

Matteo Fracella, Federica Frasca, Leonardo Sorrentino, Alessandra D'Auria, Letizia Santinelli, Luca Maddaloni, Ginevra Bugani, Chiara Virgillito, Enrica Mancino, Greta Di Mattia, Maria Giulia Conti, Luigi Matera, Beniamino Caputo, Gabriella D'Ettore, Fabio Midulla, Guido Antonelli, Alessandra Pierangeli, Carolina Scagnolari.

DENVER

2024 - Presenting author - (Oral presentation) Conference on Retroviruses and Opportunistic Infections (CROI) TITLE: Synergistic Effects of HIV, HPV, and Polyomaviruses on Interferon Response in Male Anal Mucosa

Matteo Fracella, Sara Passerini, Letizia Santinelli, Leonardo Sorrentino, Luca Maddaloni, Ginevra Bugani, Eugenio Nelson Cavallari, Alessandra Pierangeli, Guido Antonelli, Claudio Maria Mastroianni, Gabriella D'Ettore, Valeria Pietropaolo, Carolina Scagnolari.

06/05/2022

PATOGENESI E TRASMISSIONE DELL'INFEZIONE DA VIRUS DELL'EPATITE C (HCV)

Attività Didattiche Elettive (ADE)

Role: Presenting Author

12/04/2022

SARS-CoV-2: PATOGENESI E GESTIONE CLINICA DEL PAZIENTE DURANTE E POST COVID-19

Attività Didattiche Elettive (ADE)

Role: Presenting Author

25/05/2022

MALARIA: CONTAGIO, SINTOMI E PROFILASSI

Attività Didattiche Elettive (ADE)

Role: Presenting Author

05/05/2023

HCV: MODALITÀ DI TRASMISSIONE, MECCANISMI PATOGENETICI E GESTIONE DEL RISCHIO BIOLOGICO

Attività Didattiche Elettive (ADE)

Role: Presenting Author

24/05/2023

INFEZIONI DA PAPILOMAVIRUS UMANO: INCIDENZA, FATTORI DI RISCHIO E TRATTAMENTO DELLE LESIONI ASSOCIATE

Attività Didattiche Elettive (ADE)

Role: Presenting Author

● TEACHING ASSIGNMENT

18/05/2022

Teaching assignment, Second level Master's in Molecular Virology a.a. 2021-2022, Department of Molecular Medicine

Topic of the lecture "Applicazione della tecnologia CRISPR/CAS9"

12/10/2022

Teaching assignment, Second level Master's in Molecular Virology a.a. 2021-2022, Department of Molecular Medicine

Topic of the lecture "Ruolo della risposta immunitaria innata nell'infezione da HPV"

Tutoring assignment for Master's degree students of Medicina e Odontoiatria, Sapienza University of Rome (Tutorati in ingresso e in itinere)

a.a. 2021-2022

26/10/2023

Teaching assignment, First level Master's in Gestione del paziente critico in corso di eventi catastrofici (CBNRE/Natech)

Topic of the lecture "Procedure di sicurezza, gestione del rischio biologico e controllo dell'infezione da MONKEYPOX VIRUS"

Culture della materia - MICROBIOLOGIA / MED/07 A.A. 2022/2023

Ugo Froelich