

BIOGRAPHICAL SKETCH

NAME: Lucia Nencioni

POSITION TITLE: Full Professor of Microbiology

EDUCATION/TRAINING:

INSTITUTION AND LOCATION	DEGREE	Completion Date	FIELD OF STUDY
University of Florence	Master's degree	04/1993	Biology
University of Rome Tor Vergata	PhD	05/2002	Neuroscience
University of Rome Tor Vergata	Postdoctoral	02/2003	Microbiology
University of Rome Sapienza	Postdoctoral	10/2006	Microbiology

A. Personal Statement

I am a Full Professor of Microbiology, and my research is mainly focused on:

- Study of the molecular mechanisms involved in regulation of viral replication and host cell response (death/survival; inflammatory and immune response).
- Study of relationship between intra/extracellular redox state and viral infection and evaluation of antiviral effect of redox-modulating compounds in *in vitro* and *in vivo* models.
- Study of new antiviral strategies aimed at inhibiting host cell functions, rather than viral structure, that are essential for replication of different viruses. Identification and characterization of new synthesized or natural antiviral compounds.
- Evaluation of antiviral/antiinflammatory activity of new synthesized or natural molecules in different models of infection.
- Study of cooperation between different pathogens (bacteria and viruses) in the pathogenesis of acute and chronic diseases.

Ongoing and recently completed projects that I would like to highlight include:

- RiPREI 2022 (Istituto Superiore di Sanità), project title "Gaining insight into COVID-19 neuropathogenesis: a closer look to SARS-CoV-2 infection and driven neuroinflammation in the neuron/microglia axis", Principal Investigator (PI)
- PRIN 2022 PNRR (MUR), project title "Dual acting rEdox- modulating thiol molecules targeting Viral rEplication and inflAmmatory respOnse in resPIratory virus infections (DEVELOP)". Coordinator of the project.

- PRIN 2022 (MUR), project title “Dissecting the host cellular response to develop novel host-targeted approaches against RNA viruses”, PI
- PNRR Investimento 1.3 Partenariati estesi PE13 Malattie infettive 2022 (MUR), project title “One Health Basic and Translational Research Actions addressing Unmet Needs on Emerging Infectious Diseases” INFACIT, 3 anni. PI Research Unit (component of massa critica Spoke 1).
- Fondazione Cenci Bolognetti - Istituto Pasteur 2019, project title “Role of Glucose-6-phosphate dehydrogenase (G6PD) in regulating influenza virus replication and host response to infection”, PI
- PRIN 2017 (MUR), project title “ORIGINALE CHEMIAE in Antiviral Strategy - Origin and Modernization of Multi-Component Chemistry as a Source of Innovative Broad Spectrum Antiviral Strategy, PI Research Unit Sapienza

BIBLIOMETRIC INDICES

H-index (Scopus) = 34

Total citations (Scopus) = 3819

Total Impact factor (IF 2023) = 420.847

B. Positions, Scientific Appointments, and Honors

21/12/2023 - to date	Full Professor of Microbiology (SSD MEDS-03/A), Sapienza University of Rome
2015 - 20/12/2023	Associate Professor of Microbiology (SSD MEDS-03/A), Sapienza University of Rome
2023 - to date	Member of the Teachers' board of National PhD in Innovation in the diagnosis, prevention and treatment of infections at epidemic-pandemic risk, University of Siena
2023 - to date	Member of the Executive Board of the New Italian Society of Pharmaceutical Microbiology ETS
2022 - to date	Coordinator of Microbiology Section, Department of Public Health and Infectious Diseases, Sapienza University of Rome
2017	Visiting Professor at Department of Biology, Queens College City University of New York, NY, USA
2017 - to date	Member of the Italian Society of Virology
2006 - 2015	Assistant Professor of Microbiology (SSD MED 07), Sapienza University of Rome
2012 - to date	Reviewer for Ministry of University and Research (MUR): microbiology, virology
2012 - to date	Member of the Teachers' board of PhD in Life Sciences, Sapienza University of Rome
2003 - 2006	Contract Researcher, Sapienza University of Rome
2002 - 2003	Contract Researcher, University of Rome Tor Vergata
2002	PhD in Neuroscience, University of Rome Tor Vergata
2000 - to date	Member of the Italian Society of Microbiology
1997	Fellowship in the project “Study of signal transduction of nerve growth factor in memory B lymphocytes. CNR, Institute of Experimental Medicine, Rome
1995 - 1996	Fellowship in the project “Purification of an autocrine growth factor in myeloma cells”, Department of Clinical Physiopathology, University of Florence
1993 - 1995	<i>Post lauream</i> stage in the project “Study of modulation of macrophage colony stimulating factor receptor after cytokine treatment”, Institute of General Pathology, University of Florence
1993	Master's Degree in Biological Sciences, University of Florence

Honors

2025	Patent for industrial invention n. 102023000008370 “Composizioni ad attività antiossidante, antivirale ed immunomodulante comprendenti estratti di luppolo (<i>Humulus lupulus</i> L.) e di sambuco (<i>Sambucus nigra</i> L.) titolati in flavonoidi”, approved 29/4/2025.
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2024	Award for the best poster, 52 nd National Congress of the Italian Society of Microbiology, Pavia, Italy
2024	Award for the best poster, 26 th International Conference on Redox Medicine, Fondation Biermans-Lapôtre, Paris, France
2013	Award for the best poster, Virology Session, 41 st National Congress of the Italian Society of Microbiology, Riccione, Italy
2002	Award for the best oral communication, Virology Session, 30th National Congress of the Italian Society of Microbiology, Catania, Italy
2000	Award for the best poster, 3rd Symposium of the International Cell Death Society, Madrid Espana

C. Contributions to Science

Our research contributed to deepen the strict relationship between respiratory virus and host cell. Indeed, we contributed to identify and characterize new pathogenetic mechanisms involved in the regulation of viral replication and control inflammatory response, with particular focus on redox pathways activated during emergent and re-emergent viral infection.

These results may also pave the way for innovative antiviral/anti-inflammatory strategies based on targeting host cell factor instead of viral structures, avoiding the emergence of drug resistance and acting with a broad-spectrum activity.