

EUROPEAN CURRICULUM VITAE FORMAT



PERSONAL INFORMATION

Myrka Zago



- University of Rome Tor Vergata
 - Department of Systems Medicine
Via Montpellier, 1, 00133 Rome (Italy)
 - Center for Space BioMedicine
Via Montpellier, 1 00133 Rome (Italy)

✉ myrka.zago@uniroma2.it

📄 <https://scholar.google.com/citations?user=IUcDMswAAAAJ&hl=it&oi=ao>

Nationality: Italian

Enterprise	University	EPR
<input type="checkbox"/> Management Level	<input checked="" type="checkbox"/> Full professor SSD BIO/09	<input type="checkbox"/> Research Director and 1st level Technologist / First Researcher and 2nd level Technologist / Principal Investigator
<input type="checkbox"/> Mid-Management Level	<input type="checkbox"/> Associate Professor	<input type="checkbox"/> Level III Researcher and Technologist
<input type="checkbox"/> Employee / worker level	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

WORK EXPERIENCE

- 2023-present **Steering Committee, Nominated Member, European Space University for Earth and Humanity (UNIVERSEH2, 2023-2027)**
- 2023-present **Executive committee, National PhD Program in Space Science and Technology – SST**
University of Trento, Italy
- 2023-present **General Councilor, Nominated Member, Fondazione Nazionale Comunicazioni (2023-2028)**
Rome, Italy
- 2023-present **Member of the Department of Systems Medicine**
University of Rome Tor Vergata, Rome, Italy
- 2022-present **Deputy-coordinator, National PhD Program in Space Science and Technology – SST**
University of Trento, Italy
- 2021-present **Director of the Center for Space Bio-Medicine**
University of Rome Tor Vergata, Rome, Italy
- 2018-2023 **Member of the Department of Civil Engineering and Computer Science Engineering**
University of Rome Tor Vergata, Rome, Italy
- 2018-present **Full Professor of Physiology**
University of Rome Tor Vergata, Rome, Italy
- 2018-present **Director, Laboratory of Visuomotor Control and Gravitational Physiology**
Santa Lucia Foundation, IRCCS, Rome, Italy
- 2006-2018 **Research Director (tenured, Director of Complex Operating Unit), Laboratory of Visuomotor Control and Gravitational Physiology**
Santa Lucia Foundation, IRCCS, Rome, Italy
- 2002-2006 **Senior Research Scientist (tenured, level E2), Neuromotor Physiology Laboratory**
Santa Lucia Foundation, IRCCS, Rome, Italy
- 1999-2002 **Researcher (tenured, level XI), Neuromotor Physiology Laboratory**
Santa Lucia Foundation, IRCCS, Rome, Italy

- 1998-2001 **Researcher**
Laboratoire Européen de Neurosciences de l'Action, CNRS-Collège de France, Paris, France
- 2000 **Assignment for the Scientific Research Area**
Italian Space Agency (ASI)
- 1998-1999 **Researcher (tenured, level X), Neuromotor Physiology Laboratory**
Santa Lucia Foundation, IRCCS, Rome, Italy
- 1997-1998 **Scientific Consultant, Neuromotor Physiology Laboratory**
Santa Lucia Foundation, IRCCS, Rome, Italy
- 1996-1999 **ATEM (Advanced Technology from Engineering to Medicine)**
a.t.o., Rome, Italy
- 1996-1998 **Computer science and engineering consultancy**
Epi s.r.l., Rome, Italy
- 1997-1998 **Member of the relations committee with the Superintendence of Cultural and Environmental Heritage, program "Roma Capitale 2000"**
Rome, Italy
- 1996-1997 **Scientific Consultant**
National Inter-University Research Center on Interactions between Electromagnetic Fields and Biosystems (ICEmB), Genova, Italy

EDUCATION AND TRAINING

- 2002-2003 Master, Management in Healthcare, SDA Bocconi University
- 1995-1999 PhD in Electronic Engineering (Biomedical subject area), Sapienza University, Rome
- 1995 National Board Admission to the profession of Engineer
- 1995 Graduate degree (Laurea) with full marks in Electronic Engineering (Biomedical subject area) at Sapienza University, Rome

WORK ACTIVITIES

- MAIN PROJECTS** 25 years of experience in research with astronauts. Experience includes experiments aboard the space shuttle (7 astronauts), ISS (13 astronauts) and parabolic flights (25 participants). Since 1998, coordination of the activities of the Laboratory of Gravitational Physiology at IRCCS Santa Lucia Foundation, Rome, in space research projects with ASI, ESA, NASA, including the following projects:
- Neurolab NASA, STS-90 mission Space Shuttle (6 astronauts)
 - Project VOILA ESA/NASA.
 - Project HPA mission (4 astronauts, including Roberto Vittori) on the International Space Station (ISS)
 - "Esperia" mission (astronaut Paolo Nespoli) on the ISS
 - IMAGINE, mission ELITE S2 on the ISS (3 astronauts)
 - IMAGINE2, mission ELITE S2 on the ISS (5 astronauts)
 - Slink, "Futura" mission (astronaut Samantha Cristoforetti) on the ISS
 - P.I. or Co-P.I. in international space programs (VOILA with CNES, ESA, NASA) or national space programs (ASI)

- TEACHING** **Teacher** of the Courses: “**Space Physiology**” (2018-present), Master Degree in Medical Engineering; “**Physiology**” (2019-present), Bachelor Degree in Medical Engineering, “**Physiology**” (2022-present), Postgraduate School of Medical Genetics, University of Rome Tor Vergata, Rome, Italy
Teacher of the Course: “**Space Physiology**” (2023), **National PhD Program in Space Science and Technology – SST**
University of Trento, Italy
Coordinator, Integrated Course of Biomedical Sciences and First Aid (2007-2022), Faculty of Medicine
University of Rome Tor Vergata, Rome, Italy
Contract Professor, courses: **Physiology** (2006-2018), **Neurophysiology** (2005-2006), **Human Physiology and Neurophysiology** (2002-2005), **Applied Physics** (2001-2002), **Medical biophysics** (1999-2001), **Biophysics** (1998-1999), Faculty of Medicine
University of Rome Tor Vergata, Rome, Italy
- TUTORING ACTIVITIES** **Doctoral Advisory Committee in Neuroscience**, University of Rome Tor Vergata; **Doctoral Advisory Committee in Space Science and Technology – SST**, National PhD Program, University of Trento, Italy; Member of the Board of PhD Thesis, University of Barcelona; co-tutoring of PhD student University of Barcelona; tutoring of PhD students since 1997
- COMMITTEES** Member of committee for selection of: **Full Professor** BIO/09 University of Rome Tor Vergata, **Full Professor** BIO/09 University of Pavia (2023), **Associate Professor** BIO/09, University of Rome Tor Vergata (2022), **Associate Professor** BIO/09, University of Rome Tor Vergata (2024), **Associate Professor** BIO/09, University of Bologna (2023); **RTDb** BIO/09 (2019, 2021, 2023), University of Rome Tor Vergata, **RTDa** BIO/09 (2023), University of Rome Tor Vergata, **PhD students** BIO/09 (2022, 2023), University of Trento, **postgraduate scholarships** BIO/09 (2021, 2022, 2024), University of Rome Tor Vergata
Member of committee for selection of **Research Manager** (2023), Italian National Institute of Health
Member of committee for selection of **Research Manager**, National Welfare Institute for Industrial Managerial Employees INPDAl (2000)
Member of the Ethics Commission, Order of Engineers of the Province of Rome (1997-99)
Member of the Coordination Committee of Institutional Commissions, Order of Engineers of the Province of Rome (1999)
Member of the Order of Engineers of the Province of Rome (1996-present)
- HONOURS AND AWARDS** Member of the European Science Foundation College of Expert Reviewers (2022-2025)
Protocol IMAGINE (developed by M. Zago’s research group at IRCCS Santa Lucia Foundation) was included in NASA Benefits for Humanity, 2nd edition, 2015, for the translational benefits of space research in medicine
Results from NASA Neurolab Space Shuttle mission published in Nature Neuroscience (2001, 4: 693-694, M. Zago co-corresponding author) were included by NASA in the Major Scientific Discoveries (NASA Wings in Orbit, Major Scientific Discoveries, “Eye-Hand Coordination: Changes in Visual Acuity and Manual Control”, pag. 373-375), are cited in several books, including the book Neuroscience in Space (G. Clément, M.F. Reschke) Springer, New York, NY 2008, the book Vestibulo-Oculomotor Research in Space (A. Clarke) Springer International Publishing, 2017.

M. Zago collaborated in the definition of the National Aero-Space Plan (PASN) and in the definition of the 3-years Activities Plan (PTA) of ASI.

Appointed Member of Biomedicine and Biotechnology Working Group of ASI (2007-08)

Award from the Council of the Order of Engineers of the Province of Rome (2022)

Two awards for research from ISTAT (National Institute of Statistics, 1998)

post-graduate Fellowship, Institute for Scientific Interchange, Torino (1997)

post-graduate Fellowship, Institute for Scientific Interchange, Torino (1996).

Doctoral Fellowship, Department of Electronic Engineering, University of Rome La Sapienza

(1995-1998)

pre graduate Fellowship, Department of Electronic Engineering, University of Rome La Sapienza (1994)

EDITORIAL ACTIVITIES Academic Editor, PeerJ, area Integrative Physiology (2017-present), Associate Editor, Frontiers in Physiology section Exercise Physiology (2018-2022), Review Editor, Frontiers in Physiology section Environmental, Aviation and Space Physiology (2018-present); The Open Behavioral Science Journal, The Open Behavioral Science Letters, The Open Behavioral Science Reviews (2007-15),

INVITED PRESENTATION Since 1998, invited speaker in several national and international conferences, including FENS Symposia, the AIP Symposium The sixth sense, vestibular perception and cognition

GRANTS 26 national research programs, 10 international research programs, PI/coPI in 14 research programs, head of current and applied research projects on Visuomotor Control and Space Physiology, IRCCS Santa Lucia Foundation, Italian Ministry of Health (1998-present).
Part 1 Funding Agencies/Organizations: EEC, Italian MoH, INAIL, ISPESL, LENA, MIUR, MUR, ASI, ESA, NASA, Regione Lazio.

Relevant GRANTS:

Coordinator on behalf of University of Tor Vergata, project Universeh 2.0: European University Erasmus+ project (2023-2027)

Principal Investigator, head of unit project Prin 2022 – Muscle synergies and sensorimotor integration in goal directed upper limb movements, Italian Ministry for Universities and Research (2023-2025)

Principal Investigator, PNRR POC project Diagnostic system for assessing haptic communication abilities and impairments during interactive locomotion, Italian Ministry of Health (2023-2025)

Principal Investigator, head of unit Tor Vergata Spoke 4, PNRR project MNESYS, EU (2022-2025)

Principal Investigator, head of unit Tor Vergata, project Prin 2020 - The neurophysiological bases of biological motion: from laboratory to clinics, Italian Ministry for Universities and Research (2022-2025)

- GRANTS** Part 2
- Principal Investigator, head of unit IRCCS Santa Lucia Foundation, project Synerg, Italian Ministry of Health (2020-2023)
- Principal Investigator, head of unit IRCCS Santa Lucia Foundation, project MarsPre, Italian Space Agency (2019-2022)
- Principal Investigator, scientific coordinator of the project and head of unit IRCCS Santa Lucia Foundation, project ARIANNA, Italian Space Agency (2014-2018)
- Co-Investigator, unit IRCCS Santa Lucia Foundation, project "Impacts of spatial biomedical research in neuromotor rehabilitation", Lazio-Innova, Regione Lazio (2015-2017)
- Principal Investigator, head of unit IRCCS Santa Lucia Foundation, project SLINK, Italian Space Agency (2013-2015)
- Co-Investigator, PRIN 2012, project Action organization and monitoring: from vision to motor control (2012-2014)
- Co-Investigator, Translational Research 2010, project Improving balance through gravity cues embedded in free falling target, Italian Ministry of Health (2012-2014)
- Principal Investigator, head of unit IRCCS Santa Lucia Foundation, project CRUSOE, Italian Space Agency (2011-2012)
- Principal Investigator, head of unit IRCCS Santa Lucia Foundation, Translational Research 2006, strategic project Fondazione Don Gnocchi "Risk factors for neuromusculoskeletal disorders for video terminal operators" (2008-2010)
- Principal Investigator, head of unit IRCCS Santa Lucia Foundation, Translational Research 2006, ordinary project ISPEL "Accidents at work: effects of rehabilitation on Quality of Life and job reintegration" (2008-2011)
- Co-Principal Investigator, project ELITE, Kayser (Centre of Space Bio-Medicine, University of Rome Tor Vergata, 2006-2010)
- Principal Investigator, scientific coordinator of unit IRCCS Santa Lucia Foundation, project DCMC Centre of Space Bio-Medicine, University of Rome Tor Vergata-Italian Space Agency (2006-2009)
- Principal Investigator, head of unit IRCCS Santa Lucia Foundation, Translational Research 2004, project ISPEL "Study of neurobehavioral parameters in healthy volunteers exposed to electromagnetic fields" (2005-2008)
- Co-Investigator, project CMCR, Italian Space Agency (2004)
- Co-Investigator; Visuomotor and Orientation Investigations in Long-Duration Astronauts (VOILA) project, NASA, 2004
- Co-Investigator, project HPA, Italian Space Agency-Kayser (2002-2004)
- Co-Investigator, Cognitive factors in motor control: role of internal models and gravity, Italian Space Agency (2001-2003)
- Co-Investigator, National Research Program MIUR/CNR-ENEA "Safeguarding man and the environment from electromagnetic emissions", Unit: Modeling of the action of EM fields on bioelectrochemical processes (2000-2003)
- Co-Investigator, project Internal models for visuomotor anticipation, Contract I/R/146/00 Italian Space Agency-IRCCS Santa Lucia Foundation (1999)
- Co-Investigator, project Spatial orientation and sensorimotor coordination after prolonged exposure to microgravity, Italian Space Agency-IRCCS Santa Lucia Foundation (1999)
- Co-Investigator, Neurolab project: Frames of Reference and Internal Models (9301111), 1998, NASA

ADDITIONAL INFORMATION

RELEVANT PUBLICATIONS

1. La Scaleia B, Lacquaniti F, Zago M (2023) Enhancement of Vestibular Motion Discrimination by Small stochastic whole-body perturbations in young healthy humans, **Neuroscience** 510,pp. 32-48
2. Gravano S, Lacquaniti F, Zago M (2021). Mental imagery of object motion in weightlessness. **NPJ Microgravity**, vol. 7(1):50
3. Jörges B, La Scaleia B, López-Moliner J, Lacquaniti F, Zago M. (2021) Perceptual judgments of duration of parabolic motions. **Sci Rep**. 11(1):7108
4. La Scaleia B, Ceccarelli F, Lacquaniti F, Zago M. (2020) Visuomotor interactions and perceptual judgments in virtual reality simulating different levels of gravity. **Front Bioeng Biotechnol**. 8:76.
5. La Scaleia, B., Lacquaniti, F. and Zago, M. (2019), Body orientation contributes to modelling the effects of gravity for target interception in humans. **J Physiol**. 597: 2021-2043.
6. Zago M, (2018) Perceptual and motor biases in reference to gravity. In: Timothy L. Hubbard (Ed), **Spatial Biases in Perception and Cognition**, Cambridge University Press, Cambridge, UK, pp. 156-166
7. Lacquaniti F, Ivanenko YP, Sylos-Labini F, La Scaleia V, La Scaleia B, Willems PA, Zago M. (2017) Human Locomotion in Hypogravity: From Basic Research to Clinical Applications. **Front Physiol**. 7;8:893.
8. Senot P, Zago M, Le Séac'h A, Zaoui M, Berthoz A, Lacquaniti F, McIntyre J. (2012) When up is down in 0g: How gravity sensing affects the timing of interceptive actions. **J Neurosci** 32(6):1969-73.
9. Zago M, Lacquaniti F. (2005) Visual perception and interception of falling objects: a review of evidence for an internal model of gravity. **J. Neural Eng**. 2:S198-208.
10. Indovina I., Maffei V., Bosco G., Zago M., Macaluso E., and Lacquaniti F. (2005) Representation of visual gravitational motion in the human vestibular cortex. **Science** 308:416-9.
11. McIntyre, J., Zago, M.*, Berthoz, A., Lacquaniti, F. (2001) Does the brain model Newton's laws? **Nature Neurosci**. 4: 693-694. (* co-corresponding author)

All publications and cites are listed at

<https://scholar.google.com/citations?user=IUcDMswAAAAJ&hl=it&oi=ao>

ADVISORY ROLES

GRANT REVIEWER FOR:

Swiss National Science Foundation 2023-2024; European Science Foundation (ESF) 2023-present; Progetti di Ricerca di base, Università di Verona 2019; Programma per Giovani Ricercatori Rita Levi Montalcini 2021; Bando FAR 2021 - Progetti Interdisciplinari Mission Oriented. Projets CogniSciences, INSERM, The Netherlands Organisation for Health Research and Development (ZonMw) TOP programme round

JOURNAL REVIEWER FOR:

Journal of Neuroscience; Journal of Neurophysiology; Journal of Applied Physiology; Scientific Reports; Cortex; Neuroscience; Journal of Motor Behaviour; Frontiers in Physiology; Frontiers Human Neuroscience; Frontiers Behavioral Neuroscience; Behavior Research Methods; Biological Cybernetics; PlosOne; Experimental Brain Research; IEEE Transactions on Neural Systems & Rehabilitation Engineering; Journal of Vision; Medical Engineering & Physics; Perception; Perceptual and Motor Skills; American Journal of Psychology; Psychonomic Bulletin & Review; Vision Research; Quarterly Journal of Experimental Psychology; Visual Cognition

INTERNATIONAL COLLABORATION CEsEM-CNRS, Paris, France
Laboratoire Vision Action Cognition, Université Paris Descartes, Paris, France
Collège de France, Paris, France
Faculté des Sciences de la Motricité, Université Libre de Bruxelles, Belgique
Department of Psychology, York University, North York, Ontario, Canada
Computer Science and Engineering Faculty of Science and Engineering, York University, Toronto, Ontario Canada
National Science Foundation, Arlington, Virginia 22230, USA
Man Vehicle Laboratory, MIT, Cambridge, MA
Instituto de Neurociencias CSIC-UMH, Alacant, Spain

SOCIETY MEMBERSHIP The American Society for Gravitational and Space Research (2021-present), Italian Society of Physiology (2021-present), Italian Society of Space Biomedicine and Biotechnology (dal 2006 al 2017)

05/02/2024