
BIOGRAPHICAL SKETCH

NAME: Alessandra della Torre

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POSITION TITLE: Full Professor of Parasitology

Academic Appointments:

1987	Master Degree (Laurea) in Biological Sciences, University of Rome "La Sapienza"
1993	PhD in Microbiology and Epidemiology, University of Rome "La Sapienza"
1993-1994	Human Capital Mobility fellowship (EU), Institute of Molecular Biology and Biotechnology, Fo.R.T.H., Heraklion, Greece
1994-2000	Post-Doctoral Research fellow - "Istituto Pasteur - Fondazione Cenci Bolognetti"
2000-2013	Assistant Professor of Parasitology, Sapienza University, Rome, Italy
2013-2024	Associate Professor of Parasitology, Sapienza University, Rome, Italy
2024-to date	Full Professor of Parasitology

Honors and Awards:

- AWARD 'BATTISTA GRASSI 2012' of the ACCADEMIA NAZIONALE DEI LINCEI (Italy) for "Zoologia, Parassitologia e Talassografia Biologica".
- AWARD for BEST PAPER published in the Royal Entomological Society of London Journal 'MEDICAL & VETERINARY ENTOMOLOGY' in 2007/2008"
- AWARD for BEST PAPER published in the Royal Entomological Society of London Journal 'INSECT MOLECULAR BIOLOGY' in 2000/2001"

Scientific interests:

Medical entomology, with specific regards to mosquito vectors of human and zoonotic diseases from basic to translational science. More in detail, research activities focus on two vector/disease models, as follows. 1- the Afrotropical malaria vectors of the *Anopheles gambiae* complex, with particular reference to the speciation process ongoing within the complex and its effects on malaria epidemiology and control; 2- the bionomics of native and invasive mosquito species in temperate regions with the overarching goal to translate research results into improved surveillance and control.

Contributions to Science

1- Advancements in the genomics of *Anopheles gambiae* from the full sequencing of its genome (i.e. the first insect after *D. melanogaster* to be fully sequenced; Holt et al. Science, 2002) and to the establishment of *A. gambiae* 1000 Genome Consortium aimed at providing a high-resolution view of genomic variation in natural populations and at connecting it with malaria epidemiology and the development/optimization of vector control (<https://www.malariagen.net/project/ag1000g/>). Description of a novel major malaria vector within the complex, named *Anopheles coluzzii* (della Torre et al. Science 2002; Coetzee et al. Zootaxa 2013).

2- Leading of the main networks focused on mosquito vectors of human and zoonotic diseases in Europe (i.e. The Aedes Invasive Mosquito, AIM COST Action <https://www.cost.eu/actions/CA17108/>; Mosquito Group within VectorNet3, an European network focused on medical and veterinary entomology and jointly funded by E-CDCD and EFSA to support risk assessments related to vector-borne diseases in a One Health approach, <https://www.ecdc.europa.eu/en/about-us/partnerships-and-networks/disease-and-laboratory-networks/vector-net>) and in Italy (the Research Node 2 "Arthropod vectors and vector-borne pathogens" within the INF-ACT project funded by Ministry of University in the framework of PNRR NextGenerationEU programme, <https://www.inf-act.it/>).

5 Selected publications (Scopus, April 2026: 175 papers, >10.000 citations; H-index=52)

- della Torre et al. (2026) *Anopheles coluzzii*. *Trends in Parasitology*: 42(1):77. <https://doi.org/10.1016/j.pt.2025.07.016>
- Foti et al. (2025) Towards scalable age-grading of *Aedes albopictus* mosquito using mid-infrared spectroscopy and machine learning. *Scientific Reports*: 15, 40470 (2025). <https://doi.org/10.1038/s41598-025-24404-x>
- Haba et al. (2025) Ancient origin of an urban underground mosquito. *SCIENCE*: 390(6771): eady4515. [10.1126/science.ady4515](https://doi.org/10.1126/science.ady4515)
- Pichler et al. (2025) Unbiased sequence analysis of vgsc gene reveals circulation of novel and known knock-down-resistance mutations in *Culex pipiens*, challenging vector control measures. *Journal of Pest Science* 98: 869 <https://doi.org/10.1007/s10340-024-01818-6>
- Caputo et al. (2024) Population genomic evidence of a putative 'far-west' African cryptic taxon in the *Anopheles gambiae* complex. *Communication Biology*: 7(1):1115. <https://doi.org/10.1038/s42003-024-06809-y>

On-going Grants

Project Title	Funding source	Amount (Euros)	Period	Role of the PI
INF-ACT – One Health Basic and Translational Research Actions addressing Unmet Needs on Emerging Infectious Diseases.	MUR - PNRR, Missione 4 “Istruzione e ricerca”, Componente 2, Investimento 1.3, NextGenerationEU.	Budget to AdT: 828.543 €	2022-2026	Leader of Research Node 2 “Arthropod vectors and vector-borne pathogens”
“PRIMI - Pyrethroid resistance in mosquitoes in Italy”	PRIN2022 PNRR MUR, Missione 4 “Istruzione e ricerca”, Componente 2, Investimento 1.1, NextGenerationEU	133.391 €	2022-2026	PI
VectorNET3	European Centre for Disease Control (ECDC) and the European Food Safety Authority (EFSA)	13.220 €	2025-2028	Coordinator of “Mosquito” group

Complete list of published work in MyBibliography:

<https://www.scopus.com/authid/detail.uri?authorId=57226212382>

KEYWORDS

Mosquito disease vectors, malaria, arbovirus, parasitology