

Prof. Katia Cortese

Associate Professor of Human Anatomy

Department of Experimental Medicine (DIMES), University of Genoa

Head of the Cellular Electron Microscopy Laboratory

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Professional Profile

Associate Professor of Human Anatomy with consolidated leadership in the field of cellular morphology and integrated imaging. Head of an electron microscopy laboratory active in oncological and neurobiological research. Activities span three main areas: teaching, scientific research, and third mission, with a strong focus on training, territorial engagement, and science communication.

Teaching Activities

- Lecturer in the integrated Master's Degree Programs in Medicine and Surgery, Pharmacy, and Pharmaceutical Chemistry and Technology
 - Design and coordination of educational programs in Human Anatomy and Microscopy
 - Member of the PhD Board in Biotechnology in Translational Medicine, Bioimaging curriculum
 - Member of the PhD Academic Committee (since 2023) and, since 2024, member of the PhD Quality Assurance Commission
 - Developer of the PhD module “Seeing mechanisms across scales: how imaging uncovers subcellular responses in cancer cells” (2025)
 - Member of the University GLIA (Teaching Innovation Workgroup) since 2016
 - Extensive experience in supervising Bachelor's, Master's and PhD theses, as well as scientific mentoring of postdoctoral researchers and research fellows, within an integrated research training perspective
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Research Activities

- Research focuses on the ultrastructural and functional analysis of subcellular responses to targeted cancer therapies, with particular emphasis on HER2-positive breast cancer
- Investigation of autophagy-lysosome system remodeling, extracellular vesicle secretion, and intercellular communication in response to antibody-drug conjugates
- Integration of optical and electron microscopy, 2D and 3D models, and cellular biochemistry to study organelle dynamics and their relation to the tumor microenvironment
- In the field of neuroscience, collaboration on TDP-43-mediated neurodegeneration projects (PRIN2020), with a focus on lysosomal alterations and protein aggregation
- Active collaborations with national and international institutions, including Humanitas, University of Florence, University of Milan, San Raffaele, IRCCS San Martino Hospital, Robert Koch Institute, and INSERM
- Participation in COMULIS Globe and European imaging networks

- Scientific PI and DIMES representative for the University Research Infrastructure (IR) “Electron Microscopy”, proposed for regional funding within the S3 strategy, in synergy with technology transfer and research valorisation initiatives
 - Participation in national and international competitive funding calls, including PRIN2020 (granted), WWCR, DoD Breast Cancer Research Program (in collaboration with U.S. partners), Marie Skłodowska-Curie Postdoctoral Fellowships, and ERC Advanced Grant
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Third Mission and Public Engagement

- Lecturer since 2020 in the UniGe Senior program, an institutional initiative of lifelong learning for the general public, recognised within ANVUR's Third Mission area “Cultural and Social Production”; supervised a final thesis on “Skin and cosmetics: a journey through science and beauty”
 - Author of science outreach and critical thinking articles published on *ROARS*, *Il Fatto Quotidiano*, and *Medium*
 - Participation in television broadcasts (e.g. Primocanale) and public communication of science, society, and the role of morphology in the digital era
 - Established territorial collaborations and contract research activities (e.g. CNR Genoa)
 - Strong commitment to promoting scientific knowledge as a public good, with an integrated vision of the university's social role
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Appointments and Affiliations

- Member of the Department Council (2021–2023)
 - Member of SIAI, SII, and COMULIS Globe
 - Reviewer for international scientific journals
 - Organizer and invited speaker in national and international conferences
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Scientific Publications

The complete list of publications is available via the UniGe IRIS portal and ORCID: [0000-0001-9218-8933](https://orcid.org/0000-0001-9218-8933)