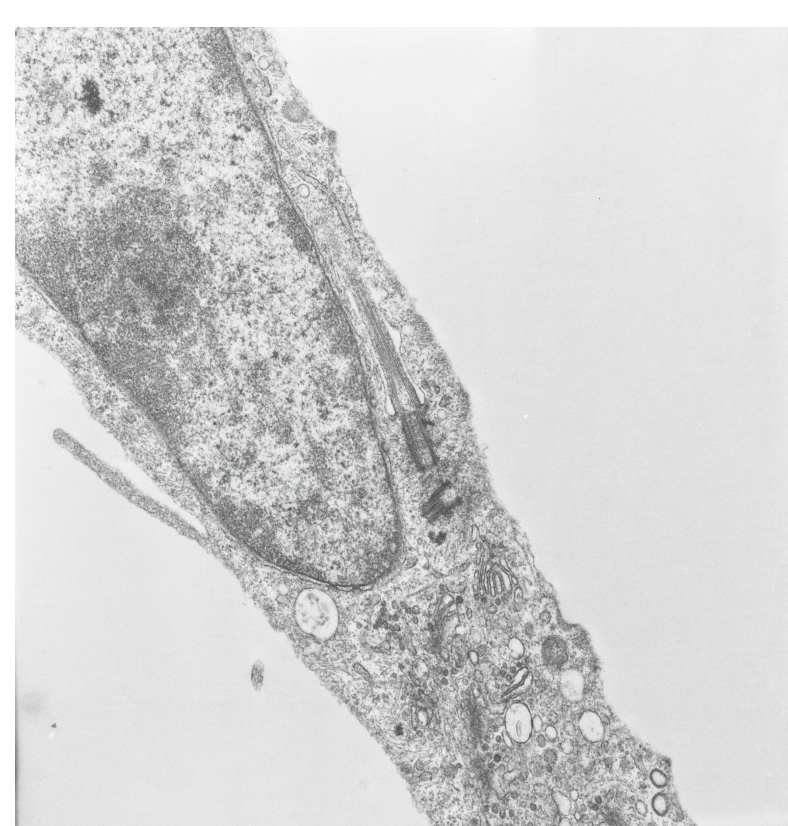
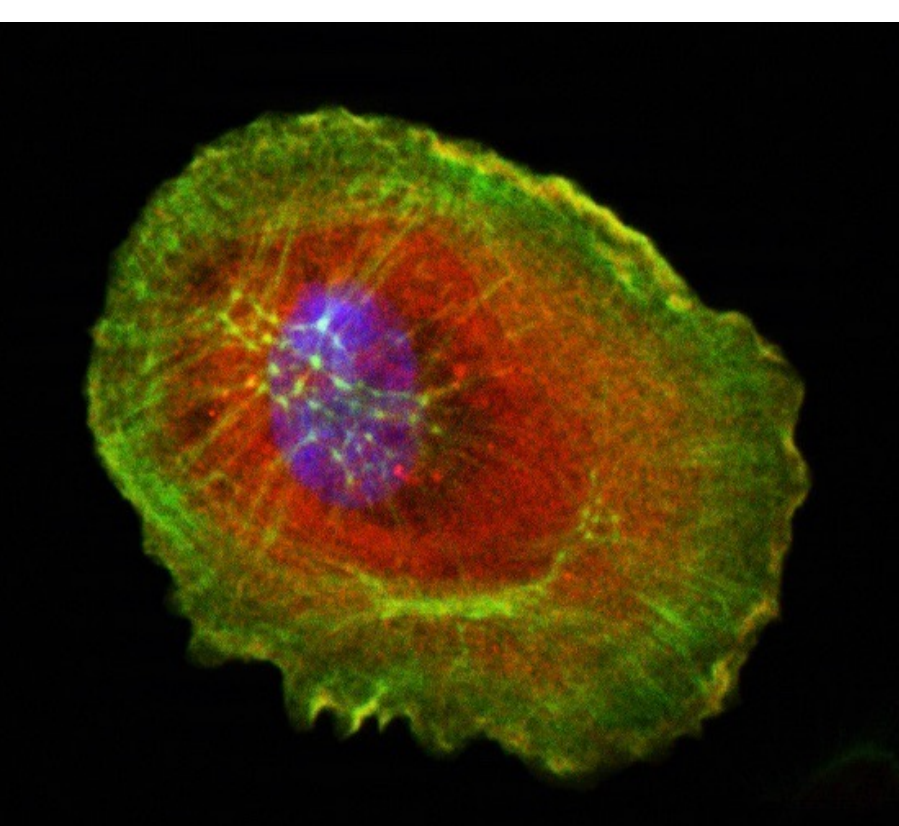


# Biopatologia ultrastrutturale



## General description of the activities

Conventional transmission electron microscopy techniques, which allow the study of the structure of normal or pathological cells through the analysis of ultrathin sections

Immunolectronmicroscopy and cryoimmunolectronmicroscopy techniques, in particular immunogold in pre- and post-embedding, which allow the localization of surface and intracellular antigens using specific antibodies and secondary antibodies conjugated with electron-dense markers.

Fluorescence microscopy techniques that allow the localization of cellular and intracellular antigens using antibodies labeled with fluorescent substances.

Cell cultures and western blot techniques.

In vitro migration assays with tumor cells.

Biocompatibility assays of zinc oxide-based nanomaterials.

| Role        | Name                            | Position            | E-mail   | Publications  | Keywords  |
|-------------|---------------------------------|---------------------|--|---|---|
| Lab head    | Prof.ssa Lavinia Vittoria Lotti | Full professor      | <a href="mailto:Laviniovittoria.lotti@uniroma1.it">Laviniovittoria.lotti@uniroma1.it</a>         | <a href="https://pubmed.ncbi.nlm.nih.gov/?term=lotti+">https://pubmed.ncbi.nlm.nih.gov/?term=lotti+</a> | Cell morphology; TEM; immuno-electronmicroscopy, cryosections, immunofluorescence   |
| Lab members | Prof.ssa Patrizia Mancini       | Associate Professor | <a href="mailto:patrizia.mancini@uniroma1.it">patrizia.mancini@uniroma1.it</a>                   | orcid.org/0000-0003-0556-2056   | Cell morphology; immunofluorescence; Tumor cell migration; biocompatibility; active compounds; zinc oxide-based nanomaterials |
|             | Dr.ssa Valeria Pozzuoli         | student             | <a href="mailto:pozzuoli.1604777@studenti.uniroma1.it">pozzuoli.1604777@studenti.uniroma1.it</a> |   |   |
|             | Daniela Dolce                   | student             | <a href="mailto:dolce.2007709@studenti.uniroma1.it">dolce.2007709@studenti.uniroma1.it</a>       |   |   |
|             | Gianluca Straface               | student             | <a href="mailto:straface.2008883@studenti.uniroma1.it">straface.2008883@studenti.uniroma1.it</a> |   |   |
|             |                                 |                     |  |   |   |
|             |                                 |                     |  |   |   |
|             |                                 |                     |  |   |   |

## Previous and current research

The research activities have been mainly directed to investigate links between protein function(s) and intracellular localization(s) in a number of experimental models, including:

- Morphological and immunocytochemical identification of intracellular compartments involved in the transport and secretion of proteins and in subcellular responses to ER stress.
- Subcellular localization and dynamics of tyrosine-kinase receptors and their substrates during differentiation, migration and apoptosis.
- Morpho-functional study of mechanisms controlling growth and resistance to therapy in cancer cells.
- Correlations between genetic alterations, expression and subcellular localization of proteins in vitro and in vivo models of tumorigenesis.
- Morpho-functional study of the mechanisms of differentiation, damage and programmed cell death in different experimental models.
- Actin cytoskeleton reorganization and morphological changes of cultured cells after treatment with growth factors.
- Biocompatibility studies with zinc oxide-based nanomaterials.
- Studies of the effects of bioactive compounds on human tumor cells

## Selected Publications

## Grants/Projects/Open Positions/Conferences

Partecipazione AIRC PRIN e Ateneo (Lotti)  
Partecipazione PRIN e Ateneo (Mancini)

## Links

Description - link

Description - link

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# Scientific picture