

Curriculum Vitae Claudia D'Oria

Nationality: Italian

Current position: Post doc at IFOM ETS - The AIRC Institute of Molecular Oncology (IFOM)

Education

2020- present: post doc position at IFOM ETS - The AIRC Institute of Molecular Oncology (IFOM), Milan

2016- 2019: PhD student in Experimental medicine and medical biotechnology, University of Milan at Istituto Nazionale di Genetica Molecolare (INGM)

2014- 2016: Master degree in Medical biotechnology and molecular medicine, University of Milan (110/110 *cum laude*)

2011-2014: Bachelor degree in Medical Biotechnology, University of Milan (108/110)

2006-2011: Liceo scientifico "IIS G. Peano", Cinisello Balsamo (MI) (Italy) (100/100)

Research activities

2020- present: study the interplay between tumor infiltrating lymphocytes and tumor (IFOM-ETS) through 3D *in vitro* models

2016- 2019: study the crosstalk between immune system and tumor through the exploitation of patient-derived organoid model (INGM)

2014- 2016: study the role of TLR3 as a potential therapeutic target for non- small cell lung cancer treatment (Istituto Nazionale dei Tumori (INT), Milan)

March-Oct 2014: study on patients affected by Congenital Hypothyroidism through Next generation sequencing (Istituto Auxologico, Cusano Milanino, Milan)

Expertise

Cellular Biology:

- Manipulation of biological samples from patient affected by colorectal cancer (CRC), non- small cell lung cancer (NSCLC) and from healthy donors;
- Isolation and *in vitro* maintenance of human immune cells starting from both tissue resections (normal and neoplastic ones) and peripheral blood;
- Isolation and culture of immune cells from murine bone marrow;
- Generation and *in vitro* maintenance of patient-derived organoids from different human tissues (colon, lung, liver, metastasis ...);
- Establishment of T cell- organoid co-culture systems for the study of crosstalk between immune cells and tumor;
- *In vitro* manipulation of both human and mouse immortalized cell lines;
- Migration assay on human cell lines;
- Proliferation/ growth and viability assays on human cell lines (WST, CFSE, Annexin V assays);
- Transfection techniques in human and mouse cell lines (shRNA, lentiviral vectors);
- T cells and organoids transduction with lentiviral vectors;
- Staining of T cells, organoids and T cell- organoid co-culture systems for flow cytometry analysis (FACS CANTO and SYMPHONY instruments).

Imaging:

- Human tissue fixation and inclusion for IHC and immunofluorescence analysis (IF);
- Human organoid fixation and inclusion for IHC and immunofluorescence analysis;
- Staining of both human primary tissue and organoids for 2D IF analysis;

- Whole mount staining (3D IF) on organoids and T-cell- organoid co- culture systems;
- Live imaging on T- cell- organoid co-culture models;
- Sample preparation for spatial transcriptomic analysis (VISIUM and CARTANA technologies).

Molecular Biology:

- Human samples preparation for bulk- and scRNA- seq analysis;
- RNA and DNA isolation from human/ murine cell lines, primary tissues and human organoids;
- PCR and Real-Time PCR on human/ murine samples;
- Library preparation for NGS;
- Western blot assay;
- Generation of competent bacteria for plasmid production;
- ChIP on human organoids.

IT skills:

- Multiparametric analysis of flow cytometry data through the use of Flowjo10 software;
- Image analysis through the use of ImageJ software;
- Visualization and manipulation of data through IGV software.

Personal expertise

Language skills: Italian (mother tongue); English (B2 level).

Digital skills: ECDL CORE certificate.

Other skills: Autonomous user of FACSaria II cell sorter and of FACS CANTO and FACS SYMPHONY instruments.

Publications

- Della Chiara G., Gervasoni F., Fakiola M., Godano C., **D'Oria C.**, et al., Epigenomic landscape of human colorectal cancer unveils an aberrant core of pan-cancer enhancers orchestrated by YAP/TAZ, *Nature Communications* (2021)
- Bonnal R J P., Rossetti G., Lugli E., De Simone M., Gruarin P., Brummelmann J., Drufuca L., Passaro M., Bason R., Gervasoni F., Della Chiara G., **D'Oria C.**, et al., Clonally expanded EOMES + Tr1-like cells in primary and metastatic tumors are associated with disease progression, *Nature Immunology* (2021).

Attended Meetings

- 05-09/04/2022: Keystone symposia on: *Single Cell Biology: Pushing New Frontiers in the Life Sciences* (Florence, Italy)
- 19/02/2019: Milan Meets Immunology (MMI) (Milan, Italy)
- 11-13/ 10/2018: NIBIT (Milan, Italy)
- 10-13/ 09/2018: *Organoids: modelling organ development and disease in 3D culture* (EMBO-Heidelberg, Germany)
- 14-16/06/2017: SIBBM (Milan, Italy)