

LISA ZANOLETTI

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EDUCATION

PhD student in GENETICS, CELLULAR AND MOLECULAR BIOLOGY UNIVERSITY OF PAVIA October 2020 - today

Master's degree in EXPERIMENTAL AND APPLIED BIOLOGY-BIOMEDICAL AND MOLECULAR SCIENCES UNIVERSITY OF PAVIA October 2018 - October 27th 2020 Final score: 110/110 L

Bachelor's degree in BIOLOGICAL SCIENCES UNIVERSITY OF PAVIA October 2015 – September 26th 2018 Final score: 106/110

High school Diploma – Foreign Languages LICEO LINGUISTICO GIOVANNI FALCONE, BG September 2010 – June 2015 Final Score: 80/100

FOREIGN LANGUAGES

ENGLISH, GERMAN, CHINESE

WORK EXPERIENCES

INTERNSHIP FOR MASTER'D DEGREE THESIS

LABORATORY OF FUNCTIONAL ONCOGENOMICS Department of Biology and Biotechnology, University of Pavia, Italy Supervisors: Prof. Sergio Comincini and Dr. Federico Manai **October 2018 – October 2020**

Thesis' Title: Effects of gluten exorphins on tumorigenesis and their role in celiac disease The exorphins are small peptides released by the digestion of gluten. They can bind the opioid receptors, particularly δ-receptors, activating various signalling cascades. This study tested the direct action of exorphins in promoting proliferation and tumorigenesis in *in vitro* models of EATL and carcinoma. The final aim of this project is the understanding of exorphins' effect in celiac patients. They might be involved in promoting tumorigenesis, such as enteropathy-associated T-cell lymphoma (EATL) and adenocarcinoma of the small intestine, in celiac patients that do not follow a strict-gluten free diet.

INTERNSHIP

IMMUNOGENETICS LABORATORY IRCCS San Matteo Hospital Foundation, Pavia, Italy Supervisor: Anna Maria Pasi November 2019 – March 2020

Laboratory work: patient's HLA typing to find compatible donors for bone marrow transplantation or allelic variants associated with pathologies (e.g. celiac disease, diabetes etc.)

INTERNSHIP FOR BACHELOR'S DEGREE THESIS

LABORATORY OF FUNCTIONAL ONCOGENOMICS Department of Biology and Biotechnology, University of Pavia, Italy Supervisors: Prof. Sergio Comincini and Dr. Federico Manai October 2017 – September 2018

Thesis' Title: Autophagic induction by trehalose reduces the cytotoxic effect of gliadin in an *in vitro* model of celiac disease.

Gluten-derived gliadin peptides lead to an impairment in the autophagy pathway in celiac disease models, as already demonstrated in previous work (Manai et al. 2018). We have therefore investigated the effect of disaccharide trehalose, a mTOR-independent autophagy inducer that is able to counteract gliadin cytotoxicity through the rescue of the autophagy flux. Our results showed the beneficial effects of trehalose in a CD in vitro model, underlining autophagy as a molecular pathway whose modulation might be promising in counteracting PT-gliadin cytotoxicity (Manai et al. 2019).

MEETINGS AND EVENTS

I attended **8° National Meeting AIC** (Associazione italiana celiachia) – 27th September 2019 – Milan, Starhotel Buisness Palace

PUBLICATIONS

Martinelli C, Gabriele F, Dini E, Carriero F, Bresciani G, Slivinschi B, Dei Giudici M, **Zanoletti L**, Manai F, Paolillo M, Schinelli S, Azzalin A, Comincini S. **Development of Artificial Plasma Membranes Derived Nanovesicles Suitable for Drugs Encapsulation**. Cells. 2020 Jul 6;9(7): E1626.

Manai F, Azzalin A, Morandi M, Riccardi V, **Zanoletti L**, Dei Giudici M, Gabriele F, Martinelli C, Bozzola M, Comincini S. **Trehalose Modulates Autophagy Process to Counteract Gliadin Cytotoxicity in an In Vitro Celiac Disease Model**. Cells. 2019 Apr12;8(4):348.