

## Eleonora ZONTA

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Eleonora ZONTA, PhD

eleonora.zonta<at>parisdescartes.fr

LinkedIn Profile

31 years old

Italian citizenship

## EDUCATION

**2013-now:** Post-doc at INSERM, Descartes University - Paris V (Paris, France).

**2008-2012:** PhD at INSERM, D. Diderot University - Paris VII (Paris, France).

**2005-2008:** French-Italian double degree program (European Master in Genetics, 9 months ERASMUS program exchange in D. Diderot University - Paris VII, Paris, France; BSc Degree, Human Biotechnology in Medicine University, Udine, Italy).

**2002-2005:** Diploma (Computational Biology & Bioinformatics) - Medicine University (Udine, Italy).

**2001-2002:** Baccalaureat in classical studies - High School "J. Stellini" (Udine, Italy).

## EXPERIENCE / PROJECTS

**2013-now:** Post-doctoral researcher. Dr. V. Taly group, «Translational Research and Microfluidics » Team. INSERM UMR-S 1147, Head Pierre-Laurent Puig, Centre Hospitalier des Saints Pères (Paris).

***Microfluidic approach for detection and study of resistance to therapy anti TK mechanisms in lung cancer.***

**2008-2012:** PhD at INSERM (4 years). Dr. D. Auboeuf Lab, « Alternative splicing and tumoral progression» Team. IUH, Hôpital Saint Louis (Paris) and Centre de Recherche en Cancérologie de Lyon, CLB (Lyon).

***The role of ARN helicases, ddx5/ddx17 in splicing and in tumor progression.***

2009-2010: One year collaboration in. F. Baralle Lab (ICGEB - Trieste, Italy) during PhD at INSERM.

2008: Internship at INSERM (6 months). Dr. D. Auboeuf Lab, « Alternative splicing and tumoral progression» Team. Institut Universitaire d'Hématologie, Hôpital Saint Louis (Paris).

### ***Role of the transcriptional co-regulator ddx5 in c-fos mRNA export.***

**2006:** Internship at University of Udine (6 months). Dr. C. A. Beltrami Lab « Pathological Anatomy Department». Medicine University (Udine, Italy).

### ***Stem cells culture.***

**2005:** Internship at University of Udine (8 months). Dr. F. Curcio Lab, «Pathology, Experimental and Clinical Medicine Department». Medicine University (Udine, Italy).

### ***Ceramides and fatty acids in insulin signalling pathway.***

## **TEACHING/MENTORING**

**2014-2016:** Teaching in the "Frontière du Vivant" Bachelor program, Descartes University - Paris V (Paris, France).

## **PROFESSIONAL SKILLS**

### **TRANSLATIONAL SKILLS**

**Project management:** financing research, projects and activity reports writing, collaboration with national and international teams, good at group work, deadline respect.

**Communication:** Writing, submission and articles publication, command of languages.

**Enhancement:** 5 articles published, one of them in first author, oral talks and poster presentation.

**Administration:** Monitoring of reagent stocks, purchase of consumable and order management for the research team.

### **SCIENTIFIQUE SKILLS**

#### ***Techniques:***

Molecular biology: DNA/RNA extraction from tissues and cells, protein extraction, blots, cloning, PCR, real time PCR, droplet-based digital PCR, chromatin immunoprecipitation (ChIP, RNA ChIP).

Cell biology: human cells culture, transfections, murine-human co-culture.

Biochemistry: western blot, co-Immunoprecipitation, protein purification.

Microscopy: *in vivo* imaging, experience in confocal microscopy.

**Development:** Development of RNA ChIP technique linked to NGS.

**Computer Science:** MacOS and Windows, Microsoft software, Prism software, analysis of microarray results (« exon-arrays », Affymetrix), use of bio-informatic tools in the web and/or developed by research group (interactions with bio-informaticians).

## **AWARDS, FELLOWSHIPS**

Financing for 4th PhD year from FRM foundation ("Fondation pour la Recherche Médicale en France").

Financing for 2 years Post-doc from INSERM (Physicancer).

## PUBLICATIONS

- *Base position error rates analysis of next generation sequencing to detect circulating tumor DNA mutations*

N. Pécuchet, Y. Rozenholc, E. Zonta, D. Pietraz, A. Didelot, J-B. Bachet, E. Fabre, V. Taly, H. Blons, P. Laurent-Puig. Clinical Chemistry (2016), *in press*.

- *Multiplex detection of rare mutations by picoliter droplet based digital PCR : sensitivity and specificity considerations.*

E. Zonta, F. Garlan, N. Pecuchet, K. Perez-Toralla, C. Milbury, A. Didelot, O. Caen, H. Blons, E. Fabre, P. Laurent-Puig, V. Taly. Plos One (2016), 11(7):e0159094.

- *A Study of Hypermethylated Circulating Tumor DNA as a Universal Colorectal Cancer Biomarker.*

S. Garrigou, G. Perkins, F. Garlan, C. Normand, A. Didelot, D. Le Corre, S. Peyvandi, C. Mulot, R. Niarra, P. Aucouturier, G. Chatellier, P. Nizard, K. Perez-Toralla, E. Zonta, C. Charpy, A. Pujals, C. Barau, O. Bouché, J.-F. Emile, D. Pezet, F. Bibeau, J. B. Hutchison, D. R. Link, A. Zaanani, P. Laurent-Puig, I. Sobhani and V. Taly. Clinical Chemistry (2016), 62(8):1129-39.

- *Digital PCR compartmentalization II. Contribution for the quantitative detection of circulating tumor DNA.*

Caen, O., Nizard, P., Garrigou, S., Perez-Toralla, K. Zonta, E., Garlan, F., Laurent-Puig, P., Taly, V. Medicine/ Sciences (2015), 31(2):180-6. Review (French).

- *RNA Helicases DDX5 and DDX17 Dynamically Orchestrate Transcription, miRNA, and Splicing Programs in Cell Differentiation*

Dardenne E, Polay Espinoza M, Fattet L, Germann S, Lambert MP, Neil H, **Zonta E**, Mortada H, Gratadou L, Deygas M, Chakrama FZ, Samaan S, Desmet FO, Tranchevent LC, Dutertre M, Rimokh R, Bourgeois CF, Auboeuf D. Cell Rep. 2014 Jun 26;7(6):1900-13. doi: 10.1016/j.celrep.2014.05.010.

- *The Ddx5 and Ddx17 RNA helicases are cornerstones in the complex regulatory array of steroid hormone-signaling pathway*

Samaan S, Tranchevent LC, Dardenne E, Polay Espinoza M, **Zonta E**, Germann S, Gratadou L, Dutertre M, Auboeuf D. Nucleic Acids Res. 2014 Feb;42(4):2197-207. doi: 10.1093/nar/gkt1216.

- *The RNA helicase DDX5/p68 is a key factor promoting c-fos expression at different levels from transcription to mRNA export*

**Zonta E**, Bittencourt D, Samaan S, Germann S, Dutertre M, Auboeuf D. Nucleic Acids Res. 2013 Jan 7;41(1):554-64. doi: 10.1093/nar/gks1046.

- *Splicing switch of an epigenetic regulator by RNA helicases promotes tumor-cell invasiveness*

Dardenne E, Pierredon S, Driouch K, Gratadou L, Lacroix-Triki M, Polay Espinoza M, **Zonta E**, Germann S, Mortada H, Villemin JP, Dutertre M, Lidereau R, Vagner S & Auboeuf D. Nat Struct Mol Biol. 2012 Nov;19(11):1139-46. doi: 10.1038/nsmb.2390.

- *Dual role of the ddx5/ddx17 RNA helicases in the control of the pro-migratory NFAT5 transcription factor*

Germann S, Gratadou L, **Zonta E**, Dardenne E, Gaudineau B, Fougère M, Samaan S, Dutertre M, Jauliac S and Auboeuf D. Oncogene. 2012 Oct 18;31(42):4536-49. doi: 10.1038/onc.2011.618.

## COMMUNICATIONS

*The p68/DDX5 RNA helicase is a key operator in the c-fos production line.* **E. Zonta**, D. Bittencourt, M. Dutertre, D. Auboeuf. CRCL Congress, Lyon (France), May 2012. *Oral communication.*

*The transcriptional co-regulator and splicing factor p68 controls the nuclear fate of the cFos mRNA.* **E. Zonta**, D. Bittencourt, M. Dutertre, J. Barbier, L. Gratadou, D. Auboeuf. EURASNET Congress, Assisi (Italy), April 2009. *Poster.*

## LANGUAGES

English (fluent).

French (fluent; C1 level with « Alliance française » school).

Italian (fluent, mother tongue).

Spanish (intermediate; A1 level with « Cervantes school »).

## EXTRACURRICULAR ACTIVITIES

Modern art.

Cooking (participation at baking classes).

Sports (Jogging: half-marathon and trails; squash, 5 years of tennis; swimming; rugby).