Curriculum Vitae
September, 2020

1. PERSONAL INFORMATION

Elisa Oricchio, PhD --- (ORCID): 0000-0002-1690-0447
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2. EDUCATION

2008 Ph.D. in Microbiology and Immunology, Faculty of Medicine, University of Rome "Tor Vergata",
2004 M.S. in Biology, University of Rome "La Sapienza", Italy

3. EMPLOYMENT HISTORY

November 2014-present
Tenure Track Assistant Professor, Swiss Institute of Experimental Cancer Research (ISREC), SV, EPFL

9/2008-10/2014
Postdoctoral Fellow, Research Associate, Cancer Biology and Genetics Program, Memorial Sloan Kettering Cancer Center, NY, USA (USA)

10/2006-1/2007
Visiting student in Dr. Paul B. Fisher laboratory, Medical Center, Columbia University NY, USA.

4/2002-10/2004
Undergraduate student, Institute of Biology and Molecular Pathology, National Research Council (Italy)

4. FELLOWSHIPS AND AWARDS

2012 Blavatnik Award for Young Scientist, New York Academy of Science, USA
2012 Lorini Award for Italian Scientist in Cancer Research, Lorini Foundation, ITALY
2012 Lymphoma Research Foundation Fellowship, USA
2012 Memorial Sloan Kettering Post-Doctoral Research Award, MSKCC, USA
2012-2014 Special Fellowship of the Leukemia and Lymphoma Society of America (LLSA), USA
2014 K99/R00 Career Development Award, NIH, USA.

5. INVITED PRESENTATIONS in 2018-2021

2021: Invited speaker Gordon Conference "Cancer genetics and epigenetics", Barga, IT.
2020: Invited speaker Nature Cancer - SQE Cancer Epigenetic Meeting, Chicago, USA (postpone 2021)
2020: Invited speaker Biennal Symposium Epigenetics and Cancer, Miami, USA (Webinar for COVID-19)
2020: Invited seminar CNRS, Centre d'Immunologie de Marseille, FR (postpone 2021)
2020: Invited speaker Lymphoma Biology International Symposium, Cambridge, UK (postponed 2021)
2020: Invited seminar Princess Margaret Cancer Center, Toronto, CA (Webinar for COVID-19)
2020: Invited seminar Van Andel Research Institute, Grand Rapids, MI, USA (Webinar for COVID-19)
2020: Organizer and Chair at European Hematology Annual Meeting (EHA), DE (cancelled for COVID-19)

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2020: Invited seminar University of Cambridge, UK (postponed for COVID-19)
2020: Invited seminar University of South Hampton, UK (postponed for COVID-19)
2019: Invited speaker at the American Society of Hematology (ASH), Orlando, Florida, USA
2019; Invited speaker Trinity college, Dublin, IR
2019: Invited speaker at the FASEB meeting Hematological Malignancies, Colorado, USA
2019: Invited speaker and Chair at the European Haematology Annual Meeting (EHA), ND
2019: Selected talk, Gordon Conference "Cancer genetics and epigenetics", Barga, IT.
2019: Invited speaker at the American Association for Cancer Research (AACR), USA
2018: Selected talk, "Horizons of Cancer Biology and Therapy", Lausanne
2018: Selected talk, Cold Spring Harbor meeting "Mechanisms and Models of Cancer", USA
2018: Selected talk, American Society of Hematology meeting, Lymphoma Biology, USA
2018: Invited speaker European Association Cancer Research (EACR) Annual meeting, ND.
2018: Invited speaker to Swiss Society of hematology, Zurich, CH
2018: Selected talk, Keystone Conference "Cancer Epigenetics" USA

6. SUPERVISION OF UNDERGRADUATE, GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

- Post-docs → I mentored 6 post-docs, three are currently in my lab. One post-doc was awarded with the Marie Curie, EPFL Fellowships.
- PhD students Three PhD students are currently pursuing their thesis work under my supervision, and two PhD students recently graduated and continued their academic career as post-doc.
- Master students: 9 master student theses have been carried under my supervision.

7. GOVERNING ACTIVITIES

* Ad-hoc paper reviewer**:** Nature Genetics, Science Translational Medicine, Cancer Discovery, Blood, Blood Advance, Leukemia, Journal of experimental medicine, Trends in Immunology, EbioMedicine, PLOS Journals.

* Reviewer for Grant Proposals and Programs**: 1)** European Research Council (ERC) Advanced (2017) and Starting grant (2019), **2)** SNSF-based proposals: Div III (Biology and Medicine), **3)** Swiss Cancer League, **4**) Bloodwise charity, UK, **5**) FNRS (BE).

* International and National committee
European Association of Cancer Research (EACR), Board Member
European Hematology Association (EHA), lymphoma workshop organization committee

* Committee Member at EPFL, Molecular Biology PhD Program, Summer Research Program for Undergraduate Students, Distinguish Lecture in Cancer Biology, AREC committee, PRIMA and ECCELLENZA selection, organizer of SV retreat, ECCSE retreat.

8. ORGANISATION OF SCIENTIFIC MEETINGS

1) Horizons of Cancer Biology and Therapy in 2018 and 2020, Lausanne (CH), **2**) Chair and organizer session at AACR 2019, Atlanta, (USA), **3**) Chair and abstract selection committee for European Hematology Association 2019, Amsterdam (ND). **4**) Chair and organizer of workshop for European Hematology Association meeting 2020, Frankfurt (DE).

9. TEACHING ACTIVITIES (summary)

Molecular and cellular biology (3 credits; 2rd year Bachelor, more than 120 students per year); Cancer Biology I (5 credits; 1st year Master), PhD course in hemato-oncology.

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10. PATENT APPLICATIONS

1. "Cathepsin substrates and cathepsin inhibitors. EPFL, European patent application No. 20165999.2

2. Anti-Tumor Antibody-Tumor Suppressor Fusion Protein Compositions and Methods of use for the Treatment of Cancer (Application Number 61/516738 Att Docket Num. SKI-1551-PRO)

3. Cancer-Specific Suicide Gene for Cell-Based and Gene Therapy (Application Number 61586366 Att. Docket Num. MSK102US1)

11. PEER-REVIEW PUBLICATIONS

1. Dheilly E., Battistello E. Katanayeva N., Sungalee S., Wehrle S, Sordet-Dessimoz J., Mina M., Michaux J., Racle J., Farinha P., Coukos G., Gfeller D., Bassani-Sternberg M., Mottok A., Kridel R., Correia B.E., Ciriello G., Zoete Z., **Oricchio E**. "Cathepsin S inhibition enhances tumor antigen heterogeneity and anti-tumor immunity in Non Hodgkin Lymphoma" *Cancer Cell. 2020* May 11;37(5):674-689.e12.

2. Sesterhenn F, Yang C, Cramer JT, Bonet J, Wen X, Abriata LA, Kucharska I, Chiang CI, Wang, Y, Castoro G, Vollers SS, Galloux M, Dheilly E, Richard CA, Rosset S, Corthesy P, Georgeon S, Villard M, Descamps D, Delgado T, **Oricchio E**. Rameix-Welti MA, Mas V, Ervin S, Eleouet JF, Riffault S, Bates JT, Julien JP, Li Y, Jardetzky T, Krey T, Correia BE. "Trivalent cocktail of de novo designed immunogens enables the robust induction and focusing of functional antibodies in vivo". *Science. 2020* May 15;368(6492):eaay5051

3. Donaldson-Collier M.C., Sungalee S., Zufferey M. Taveranri D. Douglass K.M, Katanayeva N., Mina M, Battistello E, Rey T., Raynaud F., Manley S., Ciriello G, **Oricchio E.** "EZH2 oncogenic mutations drive epigenetic, transcriptional, and structural changes within topologically associating domains" *Nature Genet. 2019* Mar;51(3):517-528

4. Zufferey M. Taveranri D. **Oricchio E.** Ciriello G. "Comparison of computational methods for the identification of topologically associating domains" *Genome Biol. 2018* Dec 10;19(1):217

5.Battistello E., Katanayeva N., Donaldson M.C., Bonsignore L, Thome-Miazza M., Michielin O., Ciriello G., Zoete V., **Oricchio E**. "Pan-SRC kinase inhibition blocks B-Cell Receptor oncogenic signaling in Non-Hodgkin Lymphoma". *Blood. 2018* May 24;131(21):2345-2356

6. Donaldson MC, Katanayeva N, **Oricchio E**. "Sestrin1, a tumor suppressor that can be rescued." *Mol Cell Oncol. 2017* Sep 21;4(6): e1365107.

7. **Oricchio E**.*, Katanayeva N., Donaldson M.C., Sungalee S., Pasion P.P., Béguelin W., Battistello E., Sanghvi V.R., Jiang M., Jiang Y., Teater M., Parmigiani A., Budanov A. V., Chan F.G., Shah S.P, Kridel R., Melnick A.M, Ciriello G. Wendel HG. "Genetic and epigenetic inactivation of SESTRIN1 controls mTORC1 and response to EZH2 inhibition in follicular lymphoma" *Science Translational Medicine, 2017* Jun 28;9(396)
*** corresponding author**

8. Mina M, Raynaud F, Tavernari D, Battistello E, Sungalee S, Saghafinia S, Laessle T, Sanchez-Vega F, Schultz N, **Oricchio E**, Ciriello G. "Conditional Selection of Genomic Alterations Dictates Cancer Evolution and Oncogenic Dependencies". *Cancer Cell 2017* Aug 14;32(2):155-168

9. Boice M, Salloum D, Mourcin F, Sanghvi V, Amin R, **Oricchio E**, Jiang M, Mottok A, Denis-Lagache N, Ciriello G, Tam W, Teruya-Feldstein J, de Stanchina E, Chan WC, Malek SN, Ennishi D, Brentjens RJ, Gascoyne RD, Cogné M, Tarte K, Wendel HG. *"Loss of the HVEM Tumor Suppressor in Lymphoma and Restoration by Modified CAR-T Cells."* Cell. 2016 Oct 6;167(2):405-418.e13

10. Goldgur Y, Susi P, Karelehto E, Sanmark H, Lamminmäki U, **Oricchio E**, Wendel HG, Nikolov DB, Himanen JP. "*Generation and characterization of a single-chain anti-EphA2 antibody."* Growth Factors. 2014 Dec;32(6):214-22.

11. **Oricchio E.** Papapetrou EP, Lafaille F, Ganat YM, Kriks S, Mark WH, Teruya-Feldstein J, Huse JT, Reuter V, Sadelain M, Studer L, Wendel HG "*A cell engineering strategy to enhance the safety of stem cell therapies".* Cell Report 2014 September 25, 2014 08.039.

12. **Oricchio E.**, Ciriello G, Schatz JH, Jiang M, Heguy A, Viale A, de Stanchina E, Teruya-Feldstein J, Sander C, Wayne T, Seshan VE, Chaganti RSK Wendel HG *Frequent disruption of the RB pathway in indolent follicular lymphoma suggests a new combination therapy.* J Exp. Med. 2014 Jun 30;211(7):1379-91.

13. Oricchio E, Wendel HG. *"Functional genomics lead to new therapies in follicular lymphoma".* Ann NY Acad Sci. 2013 Jul;1293:18-24.

14. Schatz JH, **Oricchio E**, Puvvada SD, Wendel HG. "*Progress against Follicular Lymphoma".* Curr Opin Hematol. 2013 Jul;20(4):320-6.

15**. Oricchio, E**. and H.G. Wendel, *Mining the cancer genome uncovers therapeutic activity of EphA7 against lymphoma.* Cell Cycle, 2012. **11**(6): p. 1076-80.

16. **Oricchio E**, Nanjangud G, Wolfe AL, Schatz JH, Mavrakis KJ, Jiang M, Liu X, Bruno J, Heguy A, Olshen AB, Socci ND, Teruya-Feldstein J, Weis-Garcia F, Tam W, Shaknovich R, Melnick A, Himanen JP, Chagant R.S.K., and Wendel. HG. *Eph-Receptor A7 is a soluble tumor suppressor in Follicular Lymphoma"* Cell 2011, 147-3 554-564.

17. Schatz JH, **Oricchio E**, Wolfe AL, Jiang M, Linkov I, Maragulia J, Shi W, Zhang Z, Rajasekhar VK, Pagano NC, Porco JA Jr, Teruya-Feldstein J, Rosen N, Zelenetz AD, Pelletier J, Wendel HG.
Targeting cap-dependent translation blocks converging survival signals by AKT and PIM kinases in lymphoma. J Exp Med. 2011 Aug 29;208(9):1799-807. doi: 10.1084/jem.20110846. Epub 2011 Aug 22.

18. **Oricchio E**, Wolfe AL, Schatz JH, Mavrakis KJ, Wendel HG. *Mouse model of cancer as biological filters for complex genomic data* Dis Model Mech, 2010 Nov-Dec;3 (11-12):701-4.

19. Mavrakis KJ, Wolfe AL, **Oricchio E**, Palomero T, de Keersmaecker K, McJunkin K, JZuber J, James T, Chang K, Khan AA, Leslie CS, Parker JS, Paddison PJ, Tam W, Ferrando A and Wendel HG. *Genome-wide RNA-mediated interference screen identifies miR-19 targets in Notch-induced T-cell acute lymphoblastic leukaemia* Nat Cell Bio 2010 Apr;12(4):372-9

20. Serafino A, Balestrieri E, Pierimarchi P, Matteucci C, Moroni G, **Oricchio E**, Rasi G, Mastino A, Spadafora C, Garaci E, Vallebona PS. *The activation of human endogenous retrovirus K (HERV-K) is implicated in melanoma cell malignant Transformation*. Exp Cell Res. 2009 Mar 10;315(5):849-62.

21. Bonaccorsi I. Altieri F. Sciamanna I., **Oricchio E**., Grillo C., Contartese G., Galati EM. *Endogenous reverse transcriptase as a mediator of ursolic acid's anti-proliferative and differentiating effects in human cancer cell lines* Cancer Lett. 2008 May 8;263 (1):130-9.

22. **Oricchio E**., Sciamanna I, Beraldi R.,Tolstonog GV., Schumann GG., Spadafora C. *Distinct roles for LINE-1 and HERV-K retroelements in cell proliferation, differentiation and tumor progression* Oncogene, 2007 1-8;

23. **Oricchio E**., Saladino C., Iacovelli S., Soddu S., Cundari E. *ATM is activated by default in mitosis, localizes at centrosomes and monitored mitotic spindle integrity*. Cell Cycle 2006, 88-92 1.

24. Tritarelli A., **Oricchio E.**, Ciciarello M., Mangiacasale R., Palena A., Lavia P., Soddu S., Cundari E. *p53 localization at centrosomes during mitosis and post-mitotic checkpoint are ATM-dependent and require serine 15 phosphorylation.* Molecular Biology of the Cell. 2004 Vol. 15, 3751-3757.

Manuscripts under peer-review

Sungalee S., Liu Y., Lambuta A. R. Katanayev N., Donaldson Collier M., Tavernari D., Ciriello G., **Oricchio E**. "Active enhancers modulate chromatin conformation and promote allele specific oncogenic interactions" *Under the first round of revision in Nature Genetics (NG-LE54652).*

Donaldson Collier M., Mishkovsky M, Mina M., Saghafinia S., Yoshihara A.I.H., Ciriello G., Gruetter R., **Oricchio E**. "A neural stem cell-based model mimics molecular features of human CNS-PNET and reveals metabolic markers for non-invasive diagnoses". *Under review*

Tavernari D., Battistello E., Dheilly E., Petruzzella S. A., Mina M., J Sordet-Dessimoz J., Peters S. Krueger T., Riggi N., **Oricchio E**., Letovanec I., Ciriello G. "Non-genetic evolution drives lung adenocarcinoma spatial heterogeneity and progression. *Under first round of revision Cancer Discovery*

Liu Y., Sungalee S., Zufferey M., Tavernari D., Nanni L., Mina M., Ceri S., **Oricchio E**., Ciriello G. "Systematic inference and comparison of multi-scale chromatin architectures connects spatial organization to cell phenotypes" *Under revision*

12. ACTIVE EXTERNAL GRANTS

Swiss National Science Foundation (PI: Oricchio E)
October 2018- November 2022
"Deciphering the impact of chromosomal alterations on genome topology of lymphoma"

Swiss National Science Foundation: SPARK grant (PI: Oricchio E)
March 2020 - March 2021
"Develop Cathepsin S peptide based inhibitors to enhance anti-tumor adaptive immune-response"

Gelu Foundation (PI Oricchio E)
Grant Number 53180 January 2018- December 2022
"Develop a new diagnostic method for an aggressive form of pediatric brain tumor to guide therapeutic choices"

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Fond'Action contre le Cancer (PI Oricchio E)
June 2018- May 2021
"Assessing the therapeutic efficacy of SRC inhibitors for the treatment of aggressive lymphoma"

Mushamp Foundation (PI Oricchio E)
January 2019- December 2020
"Define the effects of targeted therapies on Diffuse Large B-Cell Lymphoma evolution"

Foundation Aclon (PI Oricchio E)
August 2019-July 2021
"Identification of genomic alterations that contribute to immune-escape in lymphoma.