

Massimiliano Mazza, Ph.D.

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Education

- 06/2002-12/2006** PhD degree in Genetics and Molecular Biology at the European Molecular Biology Laboratory, Heidelberg (*Excellent*)
Dissertation: "Control of prospore membrane formation and meiosis exit in *S.cerevisiae* by the casein kinase Hrr25p."
- 10/1996-12/2001** BSc degree in Biotechnology (*110/110 cum laude*) from the University of Bologna
Dissertation: "Construction of herpes simplex virus based vector by BAC technology: a base for gene therapy."
- 09/1991-06/1996** High school degree (Liceo Scientifico Serpieri; Rimini) (*60/60*)

Research experience

- June 2017-today** Enrolled as principal investigator at IRST
Identification and design of novel immunotherapies (i.e. CAR-T) and therapeutic antibodies to treat human malignancies (melanoma, breast cancer, mesothelioma)
- Sept. 2007-May 2017** Enrolled as postdoctoral fellow in Pier Giuseppe Pelicci lab at the European Institute of Oncology (Experimental Oncology Department, Milan)
Responsible for 3 main projects:
Development of a technological platform that combines human recombinant antibody phage display libraries with DNA deep sequencing to predict candidate antibodies endowed with higher tumor binding and selectivity
Study of PML-RAR α and AML1-ETO oncogene dependent gene expression alterations in hematopoietic stem cells and early progenitors for the identification of genes required for tumour maintenance in murine models of human acute myeloid leukemia.
Development of novel murine models of AML to test the role of single genes involved in tumor maintenance, the effect of novel drug candidates and easily track tumor cells through in vivo live imaging.

June 2002-Dec. 2006 Enrolled as PhD student in Michael Knop lab in the Cell Biology Program at the European Molecular Biology Laboratory, Heidelberg

In this lab I followed 2 main projects both in the field of yeast sporulation (eukariotic meiosis).

The first focused on the role of phospholipase D (SPO14) in the formation of intracellular prospore membrane at spindle pole bodies

The second which is the focus of my PhD thesis on the role of casein kinase II (HRR25) in yeast meiosis exit

Feb. 2002-May 2002 Visiting student, Department of Experimental Oncology, European Institute of Oncology, Pier Giuseppe Pelicci's group.

Brief general cellular/molecular laboratory practice before the award of a 4 years PhD fellowship at the European Molecular Biology Laboratory (EMBL) in Heidelberg

July 2000-Sept. 2000 Summer student, Neuropharmacology Department, SCRIPPS Research Institute (San Diego), Supervisor: Pietro P. Sanna.

Training in handling HSV, cultivate and propagate neural cell lines in culture, and perform agarose gel overlay plaque assays.

July 1999-Sept. 1999 Summer student, Gardner H.A lab, Vascular Biology Department, SCRIPPS Research Institute (San Diego), Supervisor: Ambra Pozzi

Studying the role of integrin $\alpha 1$ in angiogenesis and vascularization of pre-metastatic tumours in mouse.

Awards and Honours

2017	Post-doctoral fellowship awarded by FUV (Fondazione Umberto Veronesi; 27K€)
2014-2015	18 months Research Enhancement Package grant awarded by CEN (<i>Centro Europeo di Nanomedicina</i> ; 100K€)
2013	Funding for projects on children disease awarded by Vogue (40K€)
2013-14	Research fellowship awarded by FUV (Fondazione Umberto Veronesi; 27K€)
2009-2011	Long term fellowship awarded by FIRC (Fondazione Italiana Ricerca sul Cancro; 60K€)
2002-2006	EMBL 4 Years Pre-Doctoral Training Fellowship awarded by EMBL Heidelberg
2000	Fellowship for diploma thesis performed abroad, awarded by the University of Bologna (1K€)

Teaching activity

2012-today	PhD thesis lab supervisor (Giulia de Conti)
2011	Cancer stem cells–hope for the future? Science in School Journal (2011) vol.21 http://www.scienceinschool.org/sites/default/files/teaserPdf/issue21_cscs.pdf
2009-2011	BSc thesis supervisor of 3 students (A.U.Cammarata, M.Righi, G.de Conti; all 110/110 cum laude)
2008	Invited speaker to ELLS (European Learning Labs) course EMBL Heidelberg
2007	Invited speaker to ELLS (European Learning Labs) course EMBL Monterotondo
2006	Lecture on “Life cycle and molecular biology in <i>S.cerevisiae</i> ” at the Università di Bologna (3 rd year Biotech Class), Italy
2004	Set up of a yeast molecular biology course at EMBL Heidelberg, Germany

Publications

- Carelli S, Giallongo T, Gombalova Z, Rey F, Gorio MCF, Mazza M, Di Giulio AM. *Counteracting neuroinflammation in experimental Parkinson's disease favors recovery of function: effects of Er-NPCs administration. Journal of neuroinflammation. 2018 Nov 30;15(1):333.*
- Carelli S*, Giallongo T*, Viaggi C, Latorre E, Gombalova Z, **Mazza M**, Vaglini F, Di Giulio AM, and Gorio A. *Recovery from experimental parkinsonism by intrastriatal application of erythropoietin or EPO-Releasing neural precursors. Neuropharmacology. 2017 Mar 31. pii: S0028-3908(17)30127-2 *equal contribution*
- Saia, M., Termanini, A., Rizzi, N., **Mazza, M.**, et al. *AML1/ETO accelerates cell migration and impairs cell-to-cell adhesion and homing of hematopoietic stem/progenitor cells. Scientific Reports 2016 6, 34957*
- Carelli, S., Giallongo, T., Viaggi, C., Gombalova, Z., Latorre, E., **Mazza, M.**, et al. *Grafted Neural Precursors Integrate Into Mouse Striatum, Differentiate and Promote Recovery of Function Through Release of Erythropoietin in MPTP-Treated Mice. ASN Neuro 2016 8(5).*
- Mazza M**, Pelicci PG *Is PML a Tumor Suppressor? Front Oncol 2013 Jul 9;3:174.*
- Massimiliano Mazza***, Christian G. Riedel*, et al. *Differential requirement for phospholipase D/SPO14 and its novel interactor SMA1 for regulation of exocytotic vesicle fusion in yeast meiosis. J Biol Chem. 2005 Nov 11; 280(45):37846-52 *equal contribution*
- Enrica Migliaccio, Giulia De Michele, Giuseppina Bonizzi, Federica Pisati, Chiara Priami, Giulia De Conti, **Massimiliano Mazza** et al. *Decreased capacity of symmetric divisions as a mechanism of stem-cell aging in the mammary gland 2018* (paper under revision)
- Massa P.*, **Mazza M.*** et al. *In vivo phage display screening finds therapeutic antibodies to treat human T-ALL and melanoma 2018* *equal contribution (manuscript in preparation)
- Mazza M.***, De Conti G.* et al. *Generation of t(15;17) and t(8;21) murine leukemia models to assess the role of essential genes in AML 2018* (manuscript in preparation)

Language proficiency

Italian (native speaker), English (fluent), French and German (basic)

Hobbies and outside interests

Playing piano, travelling, astronomy, soccer, kite-surf