

CURRICULUM VITAE



EMANUELA PASQUALI

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FORMATION

Magistral Degree in Sciences and Technologies of Animal Production, Agricultural and Forestry Department, at the University of Viterbo "LA TUSCIA". Thesis Title: Treatment of Cutaneous Myiasis with "one Vet" Patent ENEA Mix 557.

WORK EXPERIENCE

Since 2018 she obtained permanent position at the ENEA, Laboratory of Biomedical technologies

2004 - 2017 she worked at ENEA (Italian National Agency for New Technologies, Energy and Sustainable Economic Development) with different contract form.

PERSONAL SKILLS AND COMPETENCES

Background in Radiobiology, Molecular Carcinogenesis and Toxicology;
Deep knowledge of experimental animal models for chemical- and radiation-induced tumorigenesis;

Experience in histology, pathology, molecular pathology and molecular biology

TECHNICAL SKILLS

Processing of biological tissues and preparation of sections for histopathological analysis using paraffin technique and frozen sections;

Istochemistry and Immunostaining (immunohistochemistry e immunofluorescence)

RNA, DNA and proteins extraction

Gene expression analysis techniques (PCR (Polymerase Chain Reaction) and qPCR (Real-time PCR))

Polymorphism analysis using STS/microsatellite-based Polymerase Chain Reaction;

Western Blot

Immunological analysis by ELISA technique

PUBLICATIONS

Consales C, Butera A, Merla C, **Pasquali E**, Lopresto V, Pinto R, Pierdomenico M, Mancuso M, Marino C, Benassi B. Exposure of the SH-SY5Y Human Neuroblastoma Cells to 50-Hz Magnetic Field: Comparison Between Two-Dimensional (2D) and Three-Dimensional (3D) In Vitro Cultures. *Mol Neurobiol.* 2021 Apr;58(4):1634-1649.

Palone F, **Pasquali E**, Giardullo P, Stronati L, Vitali R, Mancuso M. Low Dose of Dipotassium Glycyrrhizate Counteracts Atherosclerosis Progression in Apoe^{-/-} Female Mice. *J Vasc Res.* 2019;56(5):267-270. doi: 10.1159/000502692. Epub 2019 Sep 24

Subramanian V, Borchard S, Azimzadeh O, Sievert W, Merl-Pham J, Mancuso M, **Pasquali E**, Multhoff G, Popper B, Zischka H, Atkinson MJ, Tapio S. PPAR α Is Necessary for Radiation-Induced Activation of Noncanonical TGF β Signaling in the Heart. *J Proteome Res.* 2018 Apr 6;17(4):1677-1689.

Tanno B, Leonardi S, Babini G, Giardullo P, De Stefano I, **Pasquali E**, Saran A and Mancuso M. Nanog-driven cell-reprogramming and self-renewal maintenance in Ptch1^{+/-} granule cell precursors after radiation injury. *Sci Rep.* 2017 Oct 27;7(1):14238.

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De Stefano I, Giardullo P, Tanno B, Leonardi S, **Pasquali E**, Babini G, Saran A and Mancuso M.T. The role of the Shh signaling pathway in radio-induced cataractogenesis. *Acta Ophthalmologica* Vol 95, Issue S259, September 2017.

Tanno B, Babini G, Leonardi S, Giardullo P, De Stefano I, **Pasquali E**, Ottolenghi A, Atkinson MJ, Saran A, Mancuso M. Ex vivo miRNome analysis in Ptch1+/- cerebellum granule cells reveals a subset of miRNAs involved in radiation induced medulloblastoma. *Oncotarget*. 2016 Oct 18;7(42):68253-68269.

De Stefano I, Giardullo P, Tanno B, Leonardi S, **Pasquali E**, Babini G, Saran A, Mancuso M. Nonlinear Radiation-Induced Cataract Using the Radiosensitive Ptch1(+/-) Mouse Model. *Radiat Res*. 2016 Sep;186(3):315-21.

Tanori M, Casciati A, Berardinelli F, Leonardi S, **Pasquali E**, Antonelli F, Tanno B, Giardullo P, Pannicelli A, Babini G, De Stefano I, Sgura A, Mancuso M, Saran A, Pazzaglia S. Synthetic lethal genetic interactions between Rad54 and PARP-1 in mouse development and oncogenesis. *Oncotarget*. 2016

Filocamo G, Brunetti M, Colaceci F, Sasso R, Tanori M, **Pasquali E**, Alfonsi R, Mancuso M, Saran A, Lahm A, Di Marcotullio L, Steinkühler C, Pazzaglia S. MK-4101, a Potent Inhibitor of the Hedgehog Pathway, Is Highly Active against Medulloblastoma and Basal Cell Carcinoma. *Mol Cancer Ther*. 2016 Jun;15(6):1177-89.

Mancuso M, **Pasquali E**, Braga-Tanaka I 3rd, Tanaka S, Pannicelli A, Giardullo P, Pazzaglia S, Tapio S, Atkinson MJ, Saran A. Acceleration of atherosclerosis in ApoE-/- mice exposed to acute or low-dose-rate ionizing radiation. *Oncotarget*. 2015 Oct 13;6(31):31263-71.

De Stefano I, Tanno B, Giardullo P, Leonardi S, **Pasquali E**, Antonelli F, Tanori M, Casciati A, Pazzaglia S, Saran A, Mancuso M. The Patched 1 tumor-suppressor gene protects the mouse lens from spontaneous and radiation-induced cataract. *Am J Pathol*. 2015 Jan;185(1):85-95.

Tanori M, **Pasquali E**, Leonardi S, Casciati A, Giardullo P, De Stefano I, Mancuso M, Pazzaglia S, Saran A. Developmental and oncogenic radiation effects on neural stem cells and their differentiating progeny in mouse cerebellum. *Stem Cells*. 2013 Nov;31(11):2506-16.

Mancuso M, Leonardi S, Giardullo P, **Pasquali E**, Tanori M, De Stefano I, Casciati A, Pazzaglia S and Saran A. Oncogenic radiation abscopal effects in vivo: interrogating mouse skin. *Int J Radiat Oncol Biol Phys*. 2013 Aug 1;86(5):993-9.

Mancuso M, Giardullo P, Leonardi S, **Pasquali E**, Casciati A, De Stefano I, Tanori M, Pazzaglia S, Saran A. Dose and spatial effects in long-distance radiation signaling in vivo: implications for abscopal tumorigenesis. *Int J Radiat Oncol Biol Phys*. 2013 Mar 1;85(3):813-9.

Mancuso M, Pasquali E, Giardullo P, Leonardi S, Tanori M, Di Majo V, Pazzaglia S, Saran A. The radiation bystander effect and its potential implications for human health. *Curr Mol Med*. 2012 Jun;12(5):613-24.

Tanori M., **Pasquali E.**, Leonardi S., Giardullo P., Di Majo V., Taccioli G., Essers J., Kanaar R., Mullenders L.H., Atkinson M.J., Mancuso M., Saran A. and Pazzaglia S. Opposite Modifying Effects of HR- and NHEJ-deficiency on Cancer Risk in Ptc1 Heterozygous Mouse Cerebellum. *Oncogene*, 2011 Nov 24;30(47):4740-9.

Mancuso M., **Pasquali E.**, Leonardi S., Rebessi S., Tanori M., Giardullo P., Borra F., Pazzaglia S., Naus C.C., Di Majo V. and Anna Saran. Role of Connexin43 and ATP in long-range bystander radiation damage and oncogenesis in vivo. *Oncogene*, 2011 Nov 10;30(45):4601-8.

Paris L, Cordelli E, Eleuteri P, Grollino MG, **Pasquali E**, Ranaldi R, Meschini R, Pacchierotti F. Kinetics of gamma-H2AX induction and removal in bone marrow and testicular cells of mice after X-ray irradiation. *Mutagenesis*, 2011 Jul 26(4):563-72.

Mancuso M, Leonardi S, Giardullo P, **Pasquali E**, Borra F, Stefano ID, Prisco MG, Tanori M, Scambia G, Majo VD, Pazzaglia S, Saran A, Gallo D. The estrogen receptor beta agonist diarylpropionitrile (DPN) inhibits medulloblastoma development via anti-proliferative and pro-apoptotic pathways. *Cancer Lett*, 2011 Sep 28;308(2):197-202.

Mancuso M., Leonardi S., Ceccarelli M., **Pasquali E.**, De Stefano I., Prisco M.G., Rebessi S., Tanori M., Scambia G., Di Majo V., Pazzaglia S., Saran A and Gallo D. Protective role of 17 β -estradiol on medulloblastoma development in Patched1 heterozygous mice. *Int. J. of Cancer*, 2010 Dec 15;127(12):2749-57

Tanori M., Santone M., Mancuso M., **Pasquali E.**, Leonardi S., Di Majo V., Rebessi S., Saran A. and Pazzaglia S. Developmental and oncogenic effects of Insulin-like Growth Factor-I in Ptc1 \pm mouse cerebellum. *Molecular Cancer*, 2010 Mar 9;9(1):53.

Vitali R., Mancini C., Cesi V., Tanno B., Piscitelli M., Mancuso M., **Pasquali E.**, Calabretta B., Dominici C. and Raschellà G. Activity of tyrosine kinase inhibitor Dasatinib in neuroblastoma cells in vitro and in orthotopic mouse model. *Int. J. of Cancer*, 2009 Dec 1;125(11):2547-55.

Pazzaglia S., **Pasquali E.**, Tanori M., Mancuso M., Leonardi S., Di Majo V., Rebessi S. and Saran A. Physical, heritable and age-related factors as modifiers of radiation cancer risk in Patched heterozygous mice. *Int J Radiat Oncol Biol Phys*, 2009 Mar 15;73(4):1203-10.

Mancuso M., Gallo D., Leonardi S., Pierdomenico M., **Pasquali E.**, De Stefano I., Rebessi S., M.Tanori, Scambia G., Di Majo V., Covelli V., Pazzaglia S., Saran A. Modulation of basal and squamous cell carcinoma by endogenous estrogen in mouse models of skin cancer. *Carcinogenesis*, 2009 Feb;30(2):340-7.

Mancuso M., **Pasquali E.**, Leonardi S., Tanori M., Rebessi S., Di Majo V., Pazzaglia S., Toni M.P., Pimpinella M., Covelli V., Saran A. Oncogenic bystander radiation effects in Patched heterozygous mouse cerebellum. *Proc Natl Acad Sci U S A*, 2008 Aug 26;105(34):12445-50.

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Mancuso M., Leonardi S., Tanori M., **Pasquali E.**, Pierdomenico M., Rebessi S., Di Majo V., Covelli V., Pazzaglia S. and Saran A. Hair cycle-dependent basal cell carcinoma tumorigenesis in Ptch1neo67/+ mice exposed to radiation. *Cancer Re*, 2006 Jul 1;66(13):6606-6614.

Pazzaglia S., Tanori M., Mancuso M., Gessi M., **Pasquali E.**, Leonardi S., Oliva M.A., Rebessi S., Di Majo V., Covelli V., Giangaspero F. and Saran A. Two-hit model for progression of medulloblastoma preneoplasia in Patched heterozygous mice. *Oncogene*, 2006 Sep 7;25(40):5575-5580.