ANN ZEUNER

Istituto Superiore di Sanità (ISS), Viale Regina Elena 299, Rome, Italy

a.zeuner@iss.it

Expert in biomedical sciences, specialized in translational cancer research, personalized preclinical models and development of new cancer therapies. Author of 70 publications in international scientific journals (including Nature, Science, Blood, Cell Stem Cell) and member of the Scientific Board of the Italian Association for Cancer Research (AIRC), Dr. Zeuner was team leader in 21 research projects funded by national and international Institutions and filed 3 patents for new oncological therapies. She has been director of the Biotechnology Division at the Department of Oncology and Molecular Medicine (Istituto Superiore di Sanità), manager of a multicentric AIRC "5xmille" program and coordinator of an international network of centers working on colorectal cancer in the Mediterranean area (COLOMED, Italian Ministry of Health). She obtained a Master's degree in Science Communication at the International School of Advanced Studies (ISAS/SISSA) in Trieste and combines research work with a constant dissemination activity in the field of cancer prevention and therapy.

CURRENT POSITION

Research Director and Head of the Unit "Preclinical Models and Clinical Trials in Hematology and Oncology" at the Department of Oncology and Molecular Medicine, Italian National Institute of Health (Istituto Superiore di Sanità, ISS).

EDUCATION

1989: High school diploma, Liceo Classico Pilo Albertelli, Rome, Italy. Grade 60/60.
1994: University degree (five-years course): Biological Sciences, specialization: Molecular Immunology. University La Sapienza, Rome, Italy. Grade: 110/110 summa cum laude honours.
1998: PhD in Immunology, University La Sapienza, Rome, Italy, Grade: 30/30.
2009: Master Degree in Science Communication, International School of Advanced Studies (ISAS/SISSA), Trieste, Italy. Grade: 30/30.

WORK HISTORY

- 1995-1997: PhD student. Laboratory of Immunology, National Research Council (CNR), Tor Vergata University and Umberto I Hospital, Rome, Italy.

- 1997: Visiting scientist, Kimmel Cancer Center, Thomas Jefferson University, Philadelphia, USA.
- 1998- 2005: Researcher, Department of Hematology, Oncology and Molecular Medicine, National Institute of Health, Rome, Italy.
- 2003-2006: Consultant, Department of Experimental Oncology, Mediterranean Institute of Oncology, Catania, Italy.
- 2006-today: First Researcher, Department of Hematology, Oncology and Molecular Medicine, ISS.
- 2008-2017: Head of the Biotechnology Unit at the Department of Oncology and Molecular Medicine, Italian National Institute of Health (ISS).
- 2012-2015: Project Manager of the “5xmille” Molecular Clinical Oncology Program "Development of effective cancer therapies based on functional proteomics and Cancer Stem Cell targeting" (Italian Association for Cancer Research).
- 2016-2018: Coordinator of an international network of clinical and research centers working on COLOrectal cancer in the MEDiterranean area (COLOMED, Italian Ministry of Health).
- 2008-2017: Director, Biotechnology Unit, Department of Hematology, Oncology and Molecular Medicine, National Institute of Health (ISS).
- 2017-2021: First researcher and team leader, Department of Oncology and Molecular Medicine, ISS.
- 2022-today: Research Director and Head of the Unit "Preclinical Models and Clinical Trials in Hematology and Oncology” at the Department of Oncology and Molecular Medicine, Italian National Institute of Health (ISS).

AREAS OF INTEREST

Lung, breast and colorectal cancer. Precision Medicine (organoid technology, liquid biopsy, personalized anticancer therapies), molecular oncology, cancer immunology, identification of new therapeutic targets and mechanisms of therapy resistance, preclinical evaluation of novel antitumor agents and cancer stem cells. New targeted drugs for solid tumors. Stem cells in normal tissues and cancer.

FUNDED RESEARCH PROJECTS

- **MINISTERO DELLA SALUTE, PROGETTI PNRR M6C2:** Years 2022-2025. Title: Deconstructing cancer therapy resistance: integration of advanced in vitro, in vivo and in silico models to dissect patient-specific mechanisms of chemo/immunotherapy resistance, identify

novel therapeutic vulnerabilities and generate personalized strategies to target relapse-inducing cancer cells. Role: Principal Investigator.

- MINISTERO DELL'UNIVERSITA' E DELLA RICERCA, PROGETTI PNRR D3-4-HEALTH: Years 2022-2026: "Digital Driven Diagnostics, prognostics and therapeutics for sustainable Health care" (Working Group ISS), coordinator Prof. Catalano.

- MINISTERO DELL'UNIVERSITA' E DELLA RICERCA, PROGETTI PNRR HEAL ITALIA: Years 2022-2024 (Working Group ISS), coordinator Palermo University.

- ASSOCIAZIONE ITALIANA PER LA RICERCA SUL CANCRO (AIRC), Investigator Grant N. 20744: Years: 2018-2023. Title: Silent seeds at the root of cancer: targeting quiescent therapy-resistant stem cells in lung and colorectal tumors. Role: Principal Investigator.

- ASSOCIAZIONE ITALIANA PER LA RICERCA SUL CANCRO (AIRC), Investigator Grant N. 15749. Years: 2015-2017. Title: The dark side of silence: stem cell quiescence as a therapeutic target in colorectal tumors. Role: Principal Investigator.

- MINISTERO DELLA SALUTE Progetto EUROMED. Years: 2016-2018. Title: Creazione di una rete di coordinamento fra laboratori e centri clinici dedicati alla ricerca e terapia del tumore del colon-retto nei Paesi dell'area Mediterranea (COLOMED). Role: Principal Investigator.

- MINISTERO DELLA SALUTE, PROGRAMMA ONCOTECNOLOGICO FASE II, PROGETTO N. 15ONC4. Years: 2015-2016. Title: Generazione di anticorpi monoclonali diretti contro le cellule staminali tumorali di tumori solidi come potenziali strumenti diagnostici e terapeutici. Role: Principal Investigator.

- MINISTERO DELLA SALUTE, Programma per la Ricerca Finalizzata Prog. RF-ISS-2008-1237436. Years: 2009-2011. Title: Targeting survival and metastasis pathways in cancer stem cells: a molecular and translational approach. Role: Principal Investigator.

- ASSOCIAZIONE ITALIANA PER LA RICERCA SUL CANCRO (AIRC), Investigator Grant N. 5717: Years: 2009-2011. Title: Cytokines and beyond: exploring the effects of supportive therapies on tumor-initiating cells. Role: Principal Investigator.

- ASSOCIAZIONE ITALIANA PER LA RICERCA SUL CANCRO (AIRC), Investigator Grant N. 1405. Years: 2006-2008. Title: Control of myeloid cell expansion in normal and neoplastic hematopoiesis. Role: Principal Investigator.

- MINISTERO DELLA SALUTE, PROGRAMMA COOPERATIVO ITALIA-USA PER LA TERAPIA DEI TUMORI. Years: 2001-2003. Title: Molecular targets in polycythemia vera. Role: Principal Investigator.

- EUROPEAN COMMISSION EU FRAMEWORK PROGRAMME HORIZON 2020, ERA-NET TRANSCAN-2 (JTC 2014). Years: 2016-2019. Title: Targeting Colon Tumor Initiating Cell Heterogeneity (TACTIC). Coordinator Prof. J.P. Medema (Amsterdam Medical Center, Olanda).

- PON PER LA SCUOLA (Fondi Strutturali Europei Programmazione 2014-2020) Progetto N.10.2.5A-FSEPON-LA-2017-56. Year: 2019. Title: Dalla ricerca alla terapia: il ruolo della sperimentazione contro i tumori. Coordinator Dott.ssa Cristina Agresti (ISS).

- UNIVERSITA' LA SAPIENZA PROGETTI AWARDS Rif. RM11715C81FC7E53. Year: 2017. Title: Characterization and targeting of therapy-resistant quiescent stem cells in colorectal cancers. Coordinator Prof. Vito D'Andrea (Università la Sapienza, Roma).

- UNIVERSITA' LA SAPIENZA PROGETTI AWARDS Rif. C26H15ZKWL. Year: 2015. Title: Development on new therapies based on colorectal cancer stem cell targeting. Coordinator Prof. F. La Torre (Università la Sapienza, Roma).

- ISTITUTO SUPERIORE DI SANITA', Dipartimento di Oncologia e Medicina Molecolare, Progetti di Ricerca Corrente 2020. Year: 2020. Title: Analisi dell'effetto preventivo e terapeutico di una nuova formulazione di fenretinide sui carcinomi spontanei della mammella. Coordinator Dott.ssa Marta Baiocchi (ISS).

- MINISTERO DELLA SALUTE, Bando Malattie Rare Rif. N. RF-ISS-2008-1222648. Years: 2008-2010. Title: New therapeutic approaches in the human beta-thalassemia treatment: *in vitro* and *in vivo* studies. Coordinator Dott. M. Gabbianelli (ISS).

- REGIONE UMBRIA, PROGRAMMA RICERCA ONCOLOGICA Rif. N. RF-2016-02362990. Years: 2008-2011. Title: Trapianto di cellule staminali ematopoietiche allogeniche nella terapia delle emopatie maligne e delle neoplasie solide. Coordinator Prof. M. M. Martelli (Università di Perugia).

- MINISTERO DELLA SALUTE, PROGRAMMA INTEGRATO ONCOLOGIA Rif. N. RFPS-2006-3-342493. Years: 2009-2011. Title: Improving hematopoietic cell transplantation through the inhibition of apoptotic pathways. Coordinator Prof. R. De Maria (ISS).

- MINISTERO DELLA SALUTE, Programma per la Ricerca Finalizzata 2003. Years: 2003-2004. Title: il pathway IGF-1/PI3K/Akt nello scompenso cardiaco e nelle malattie cardiovascolari. Coordinator Prof. Gianluigi Condorelli (S. Raffaele, Roma)..

- MINISTERO DELLA SALUTE, Programma per la Ricerca Finalizzata 2003. Years: 2003-2004. Title: Basi molecolari della carcinogenesi e della progressione neoplastica". Coordinator Prof. R. De Maria (Istituto Oncologico del Mediterraneo).

PATENTS

- **International Patent N. US7994125B2** 8/9/2011: Ann Pegna Zeuner, Ruggero De Maria (Istituto Superiore di Sanità) entitled "Stem cell factor for preventing chemotherapy-induced depletion of blood cells".

- **National Patent N. 102014902292046** 9/11/2016: Ann Pegna Zeuner, Isabella Orienti, Ruggero De Maria (Istituti Fisioterapici Ospedalieri) entitled "Fenretinide Complexes" and PCT N. WO2016038534A1.

- **National Patent N. 102018000006278** 8/7/2020: Ann Pegna Zeuner, Adriana Eramo, Isabella Orienti (Istituto Superiore di Sanità, Alma Mater Studiorum Università degli Studi Bologna) entitled "Bionanofenretinide new antitumor formulation".

PUBLICATIONS ON INTERNATIONAL PEER-REVIEWED JOURNALS

- Cuccu A, Francescangeli F, De Angelis ML, Bruselles A, Giuliani A, **Zeuner A.** Analysis of Dormancy-Associated Transcriptional Networks Reveals a Shared Quiescence Signature in Lung and Colorectal Cancer. Int J Mol Sci. 2022 Aug 30;23(17):9869.

- Relucenti M, Francescangeli F, De Angelis ML, D'Andrea V, Miglietta S, Donfrancesco O, Li X, Chen R, **Zeuner A**, Familiari G. A Different Exosome Secretion Pattern Characterizes Patient-Derived Colorectal Cancer Multicellular Spheroids and Their Mouse Xenografts. Biology (Basel). 2022 Sep 29;11(10):1427.

- Rossi R, De Angelis ML, Xhelili E, Sette G, Eramo A, Francescangeli F, **Zeuner A.** Lung cancer organoids: promises and challenges on the path to personalized medicine. Cancers (Basel). 2022 Jul 29;14(15):3703

- De Angelis ML, Francescangeli F, Nicolazzo C, Xhelili E, La Torre F, Colace L, Bruselles A, Macchia D, Vitale S, Gazzaniga P, Baiocchi M, **Zeuner A.** An orthotopic patient-derived xenograft (PDX) model allows the analysis of metastasis-associated features in colorectal cancer. Front Oncol. 2022 Jun 28;12:869485.

- Francescangeli F, De Angelis ML, Rossi R, Sette G, Eramo A, Boe A, Guardiola O, Tang T, Yu S-C, Minchiotti G, **Zeuner A**. CRIPTO is a marker of chemotherapy-induced stem cell expansion in non-small cell lung cancer. Front Oncol. 2022, Jun 2;12, doi: 10.3389/fonc.2022.830873

- De Angelis ML, Francescangeli F, Nicolazzo C, Signore M, Giuliani A, Colace L, Boe A, Magri V, Baiocchi M, Ciardi A, Scarola F, Spada M, La Torre F, Gazzaniga P, Biffoni M, De Maria R, **Zeuner A**. An organoid model of colorectal circulating tumor cells with stem cell features, hybrid EMT state and distinctive therapy response profile. J Exp Clin Cancer Res. 2022 Mar 8;41(1):86.

- De Angelis ML, Francescangeli F, **Zeuner A**, Baiocchi M. Orthotopic Xenografts of Colorectal Cancer Stem Cells. Methods Mol Biol. 2022;2429:555-565

- Francescangeli F, Magri V, De Angelis ML, De Renzi G, Gandini O, **Zeuner A,** Gazzaniga P, Nicolazzo C. Sequential Isolation and Characterization of Single CTCs and Large CTC Clusters in Metastatic Colorectal Cancer Patients. Cancers (Basel). 2021 Dec 18;13(24):6362

- De Angelis ML, Francescangeli F, **Zeuner A**, Baiocchi M. Colorectal Cancer Stem Cells: An Overview of Evolving Methods and Concepts. Cancers (Basel). 2021 Nov 24;13(23):5910.

- Relucenti M, Francescangeli F, De Angelis ML, D'Andrea V, Miglietta S, Pilozzi E, Li X, Boe A, Chen R, **Zeuner A,** Familiari G. The Ultrastructural Analysis of Human Colorectal Cancer Stem Cell-Derived Spheroids and Their Mouse Xenograft Shows That the Same Cells Types Have Different Ratios. Biology (Basel). 2021 Sep 17;10(9):929.

- De Angelis ML, Francescangeli F, Rossi R, Giuliani A, De Maria R, **Zeuner A**. Repeated Exposure to Subinfectious Doses of SARS-CoV-2 May Promote T Cell Immunity and Protection against Severe COVID-19. Viruses. 2021 May 22;13(6):961.

- Francescangeli F, De Angelis ML, Baiocchi M, Rossi R, Biffoni M, **Zeuner A**. COVID-19-Induced Modifications in the Tumor Microenvironment: Do They Affect Cancer Reawakening and Metastatic Relapse? Front Oncol. 2020 Oct 26;10:592891.

- Francescangeli F, De Angelis ML, **Zeuner A.** COVID-19: a potential driver of immune-mediated breast cancer recurrence? Breast Cancer Res. 2020 Oct 30;22(1):117.

- Francescangeli F, Contavalli P, De Angelis ML, Careccia S, Signore M, Haas TL, Salaris F, Baiocchi M, Boe A, Giuliani A, Tcheremenskaia O, Pagliuca A, Guardiola O, Minchiotti G, Colace L, Ciardi A, D'Andrea V, La Torre F, Medema J, De Maria R, **Zeuner A.** A pre-existing population of ZEB2+ quiescent cells with stemness and mesenchymal features dictate chemoresistance in colorectal cancer. J Exp Clin Cancer Res. 2020 Jan 8;39(1):2.

- Federici G, Varricchio L, Martelli F, Falchi M, Picconi O, Francescangeli F, Contavalli P, Girelli G, Tafuri A, Petricoin EF 3rd, Mazzarini M, **Zeuner A**, Migliaccio AR. Phosphoproteomic Landscaping Identifies Non-canonical cKIT Signaling in Polycythemia Vera Erythroid Progenitors. Front Oncol. 2019 Nov 22;9:1245.

- Francescangeli F, De Angelis ML, **Zeuner A.** Dietary Factors in the Control of Gut Homeostasis, Intestinal Stem Cells, and Colorectal Cancer. Nutrients. 2019 Dec 3;11(12):2936.

- De Angelis ML, Francescangeli F, **Zeuner A**. Breast Cancer Stem Cells as Drivers of Tumor Chemoresistance, Dormancy and Relapse: New Challenges and Therapeutic Opportunities. Cancers (Basel). 2019 Oct 15;11(10):1569.

- Orienti I, Salvati V, Sette G, Zucchetti M, Bongiorno-Borbone L, Peschiaroli A, Zolla L, Francescangeli F, Ferrari M, Matteo C, Bello E, Di Virgilio A, Falchi M, De Angelis ML, Baiocchi M, Melino G, De Maria R, **Zeuner A**, Eramo A. A novel oral micellar fenretinide formulation with enhanced bioavailability and antitumour activity against multiple tumours from cancer stem cells. J Exp Clin Cancer Res. 2019 Aug 22;38(1):373.

- Nicolazzo C, Raimondi C, Gradilone A, Emiliani A, **Zeuner A**, Francescangeli F, Belardinilli F, Seminara P, Loreni F, Magri V, Tomao S, Gazzaniga P. Circulating Tumor Cells in Right- and Left-Sided Colorectal Cancer. Cancers (Basel). 2019 Jul 24;11(8).

- Orienti I, Francescangeli F, De Angelis ML, Fecchi K, Bongiorno-Borbone L, Signore M, Peschiaroli A, Boe A, Bruselles A, Costantino A, Eramo A, Salvati V, Sette G, Contavalli P, Zolla L, Oki T, Kitamura T, Spada M, Giuliani A, Baiocchi M, La Torre F, Melino G, Tartaglia M, De Maria R, **Zeuner A**. A new bioavailable fenretinide formulation with antiproliferative, antimetabolic, and cytotoxic effects on solid tumors. Cell death & disease. 2019;10(7):529. Epub 2019/07/25.

- De Angelis ML, Francescangeli F, La Torre F, **Zeuner A.** Stem cell plasticity and dormancy in the development of cancer therapy resistance. Frontiers in Oncology. Jul 10;9:626.

- Disruption of IFN-I Signaling Promotes HER2/Neu Tumor Progression and Breast Cancer Stem Cells. Castiello L, Sestili P, Schiavoni G, Dattilo R, Monque DM, Ciaffoni F, Iezzi M, Lamolinara A, Sistigu A, Moschella F, Pacca AM, Macchia D, Ferrantini M, **Zeuner A**, Biffoni M, Proietti E, Belardelli F, Aricò E. Cancer Immunol Res. 2018 Jun;6(6):658-670.

- Colorectal cancer spheroid biobanks: multi-level approaches to drug sensitivity studies. De Angelis ML, Bruselles A, Francescangeli F, Pucilli F, Vitale S, **Zeuner A**, Tartaglia M, Baiocchi M. Cell Biol Toxicol. 2018 Feb 24. doi: 10.1007/s10565-018-9423-3. Dec;34(6):459-469.

- Colorectal cancer: towards new challenges and concepts of preventive healthcare. Colace L, Boccia S, De Maria R, **Zeuner A**. Ecancer medical science. 2017 Nov 28;11:ed74. doi: 10.3332/ecancer.2017.ed74. eCollection 2017.

- Nicolazzo C, Raimondi C, Francescangeli F, Ceccarelli S, Trenta P, Magri V, Marchese C, **Zeuner A**, Gradilone A, Gazzaniga P. EpCAM-expressing circulating tumor cells in colorectal cancer. Int J Biol Markers. 2017 Jun 7:0.

- Manic G, Signore M, Sistigu A, Russo G, Corradi F, Siteni S, Musella M, Vitale S, De Angelis ML, Pallocca M, Amoreo CA, Sperati F, Di Franco S, Barresi S, Policicchio E, De Luca G, De Nicola F, Mottolese M, **Zeuner A**, Fanciulli M, Stassi G, Maugeri-Saccà M, Baiocchi M, Tartaglia M, Vitale I, De Maria R. CHK1-targeted therapy to deplete DNA replication-stressed, p53-deficient, hyperdiploid colorectal cancer stem cells. Gut. 2017 Apr 7. 67(5):903-917.

- Fiorenzano A, Pascale E, D'Aniello C, Acampora D, Bassalert C, Russo F, Andolfi G, Biffoni M, Francescangeli F, **Zeuner A**, Angelini C, Chazaud C, Patriarca EJ, Fico A, and Minchiotti G. Cripto is essential to capture mouse epiblast stem cell and human embryonic stem cell pluripotency. **Nature Communications**, 2016 Sep 2;7:12589.

- Ceglia I, Dueck AC, Masiello F, Martelli F, He W, Federici G, Petricoin EF 3rd, **Zeuner A**, Iancu-Rubin C, Weinberg R, Hoffman R, Mascarenhas J, Migliaccio AR. Preclinical rationale for TGF-β inhibition as a therapeutic target for the treatment of myelofibrosis. **Exp Hematol**. 2016 Aug 31.

- De Angelis ML, **Zeuner A**, Policicchio E, Russo G, Bruselles A, Signore M, Vitale S, De Luca G, Pilozzi E, Boe A, Stassi G, Ricci-Vitiani L, Amoreo CA, Pagliuca A, Francescangeli F, Tartaglia M, De Maria R, Baiocchi1 M. Cancer stem cell-based models of colorectal cancer reveal molecular determinants of therapy resistance. **Stem Cells Translational Medicine**, 2016 Apr;5(4):511-23.

- Iacovelli S, Ricciardi MR, Allegretti M, Mirabilii S, Licchetta R, Bergamo P, Rinaldo C, **Zeuner A**, Foà R, Milella M, McCubrey JA, Martelli AM, Tafuri A. Co-targeting of Bcl-2 and mTOR pathway triggers synergistic apoptosis in BH3 mimetics resistant acute lymphoblastic leukemia. **Oncotarget**. 2015 Oct 13;6(31):32089-103.

- Francescangeli F, Contavalli P, Gambara G, De Angelis ML, Baiocchi M, Pagliuca A, Fiorenzano A, Prezioso C, Boe A, Todaro M, Stassi G, Castro NP, Watanabe K, Salomon DS, De Maria R, Minchiotti G, **Zeuner A.** Dynamic regulation of the cancer stem cell compartment by Cripto-1 in colorectal cancer. **Cell Death Differ**. 2015 Oct;22(10):1700-13.

- Bonci D, Coppola V, Patrizii M, Addario A, Cannistraci A, Francescangeli F, Pecci R, Muto G, Collura D, Bedini R, **Zeuner A**, Valtieri M, Sentinelli S, Benassi MS, Gallucci M, Carlini P, Piccolo S, De Maria R. A microRNA code for prostate cancer metastasis. ONCOGENE. 2015 Jun 15.

- **Zeuner A**. The secret life of quiescent cancer stem cells, (**Molecular and Cellular Oncology**. 2015 Jan; 2 (1).

- **Zeuner A**, Todaro M, Stassi G, De Maria R. Colorectal Cancer Stem Cells: From the Crypt to the Clinic. **Cell Stem Cell**. 2014 Dec 4;15(6):692-705.

- **Zeuner A**, Francescangeli F, Contavalli P, Zapparelli G, Apuzzo T, Eramo A, Baiocchi M, De Angelis ML, Biffoni M, Sette G, Todaro M, Stassi G, De Maria R. Elimination of quiescent/slow-proliferating cancer stem cells by Bcl-XL inhibition in non-small cell lung cancer. **Cell Death Differ**. 2014, 105.

- Hricik T, Federici G, **Zeuner A**, Alimena G, Tafuri A, Tirelli V, Varricchio L, Masiello F, Ciaffoni F, Vaglio S, Petricoin EF, Girelli G, Levine RL, Migliaccio AR. Transcriptomic and phospho-proteomic analyzes of erythroblasts expanded in vitro from normal donors and from patients with polycythemia vera. **Am J Hematol**. 2013 Sep;88(9):723-9.

- Todaro M, Turdo A, Bartucci M, Iovino F, Dattilo R, Biffoni M, Stassi G, Federici G, De Maria R, **Zeuner A.** Erythropoietin activates cell survival pathways in breast cancer stem-like cells to protect them from chemotherapy. **Cancer Res**. 2013 Nov 1;73(21):6393-400.

- **Zeuner A**, De Maria R. Reprogramming: So simple, so complex. **Cell Death Differ**. 2012 Aug; 9(8):1253-4.

- Forte E, Miraldi F, Chimenti I, Angelini F, **Zeuner A**, Giacomello A, Mercola M, Messina E. TGFβ-dependent Epithelial-to-Mesenchymal Transition is Required to Generate Cardiospheres from Human Adult Heart Biopsies. **Stem Cells Dev**. 2012 Nov 20;21(17):3081-90.

- Francescangeli F, Patrizii M, Signore M, Federici G, Di Franco S, Pagliuca A, Baiocchi M, Biffoni M, Vitiani LR, Todaro M, De Maria R, **Zeuner A**. Proliferation State and Polo-like Kinase1 Dependence of Tumorigenic Colon Cancer Cells. **Stem Cells**. 2012 Sep;30(9):1819-30.

- **Zeuner A**, Martelli F, Vaglio S, Federici G, Whitsett C, Migliaccio AR. Concise Review: Stem Cell-Derived Erythrocytes as Upcoming Players in Blood Transfusion. **Stem Cells**. 2012 Aug;30(8):1587-96.

- Coppola V, Musumeci M, Patrizii M, Cannistraci A, Addario A, Maugeri-Saccà M, Biffoni M, Francescangeli F, Cordenonsi M, Piccolo S, Memeo L, Pagliuca A, Muto G, **Zeuner A**, De Maria R, Bonci D. BTG2 loss and miR-21 upregulation contribute to prostate cell transformation by inducing luminal markers expression and epithelial-mesenchymal transition. **Oncogene**. 2012 May 21.

- Bartucci M, Svensson S, Romania P, Dattilo R, Patrizii M, Signore M, Navarra S, Lotti F, Biffoni M, Pilozzi E, Duranti E, Martinelli S, Rinaldo C, **Zeuner A**, Maugeri-Saccà M, Eramo A, De Maria R. Therapeutic targeting of Chk1 in NSCLC stem cells during chemotherapy. **Cell Death Differ**. 2012 May;19(5):768-78.

- **Zeuner A**, De Maria R. Not so lonely at the top for cancer stem cells (**Cell Stem Cell**. 2011 Oct 4;9(4):289-90).

- Bartucci M, Dattilo R, Martinetti D, Todaro M, Zapparelli G, Di Virgilio A, Biffoni M, De Maria R, **Zeuner A**. Prevention of chemotherapy-induced anemia and thrombocytopenia by constant administration of stem cell factor. **Clin. Cancer Res**. 2011 Oct 1;17(19):6185-91.

- Maugeri-Saccà, M., **Zeuner A** and De Maria R. Therapeutic Targeting of Cancer Stem Cells. **Frontiers In Oncology,** 2011;1:10.

- **Zeuner A**, Francescangeli F, Signore M, Venneri MA, Pedini F, Felli N, Pagliuca A,Conticello C, De Maria R.The Notch2-Jagged1 interaction mediates stem cell factor signaling in erythropoiesis. **Cell Death Differ**. 2011 Feb;18(2):371-80.

- Cammareri P, Scopelliti A, Todaro M, Eterno V, Francescangeli F, Moyer MP, Agrusa A, Dieli F, **Zeuner A**, Stassi G. Aurora-a is essential for the tumorigenic capacity and chemoresistance of colorectal cancer stem cells. **Cancer Research.** 2010 Jun 1;70(11):4655-65.

- **Zeuner A**, Pedini F., Francescangeli F., Signore M., Girelli G., Tafuri A., De Maria R. Activity of the BH3 mimetic ABT-737 on polycythemia vera erythroid precursor cells **Blood**, 2009, vol 113, pag. 1522-5.

- Ricci-Vitiani L., Pagliuca A., Palio E., **Zeuner A**, De Maria R. Colon cancer stem cells. **Gut**, 2008 vol 57, pag. 538-48.

- **Zeuner A**, Signore M., Martinetti D., Bartucci M., Peschle C., De Maria R. Chemotherapy-induced thrombocytopenia derives from the selective death of megakaryocyte progenitors and can be rescued by Stem Cell Factor. **Cancer Research**, 2007, vol. 67, pag. 4767-4773.

- Conticello C, Adamo L, Giuffrida R, Vicari L, **Zeuner A**, Eramo A, Anastasi G, Memeo L, Giuffrida D, Iannolo G, Gulisano M, De Maria R. Proteasome inhibitors synergize with tumor necrosis factor-related apoptosis-induced ligand to induce anaplastic thyroid carcinoma cell death. **J. Clin. Endocrinol. Metab.**, 2007, vol.92, pag.1938-42.

- Ribeil J.A, Zermati Y, Vandekerkhove J, Cathelin S, Kersual J, Dussiot ., **Zeuner A**, Varet B, Solary ., Garrido C, Hermine O. Hsp70 is a new major regulator of erythropoiesis by preventing caspase-3-mediated cleavage of GATA-1. **Nature**, 2007, vol. 445, pag.7123-7125.

- Eramo A, Ricci-Vitiani L, **Zeuner A**, Pallini R, Lotti F, Sette G, Pilozzi E, Larocca LM, Peschle C, De Maria R. Chemotherapy resistance of glioblastoma stem cells. **Cell Death Differ.** 2006, vol. 13, pag. 1238-41.

- **Zeuner A**, Pedini F, Signore M, Ruscio G, Messina ., Tafuri A, Girelli G, Peschle C, De Maria R. Increased death receptor resistance and $FLIP_{short}$ expression in polycythemia vera erythroid precursor cells. **Blood**, 2006, vol. 107, pag. 3495-502.

- Felli N, Pedini F, **Zeuner A**, Petrucci E, Testa U, Conticello C, Biffoni M, Di Cataldo A, Winkles JA, Peschle C, De Maria R. "Multiple members of the TNF superfamily contribute to IFN-gamma-mediated inhibition of erythropoiesis. **Journal Of Immunology**, 2005, vol. 175, pag.1464-1472.

- Conticello C, Pedini F, **Zeuner A**, Patti M, Zerilli M, Stassi G, Messina A, Peschle C, De Maria R. Interleukin-4 protects tumor cells from anti-CD95 and chemotherapic agents via upregulation of antiapoptotic proteins. **Journal Of Immunology**, 2004, vol. 172, pag. 5467 - 5477.

- Todaro M, **Zeuner A**, Stassi G. Role of apoptosis in autoimmunity. **Journal Of Clinical Immunology**, 2004, vol. 24(1) pag. 1-11.

- **Zeuner A**, Pedini F, Signore M, Testa U, Pelosi E, Peschle C, De Maria R. Stem cell factor protects erythroid precursor cells from chemotherapeutic agents via up-regulation of BCL-2 family proteins. **Blood** 2003, vol. 102(1), pag. 87-93.

- Conte E, Manzella L, **Zeuner A**, Cocchiaro G, Conticello C, Zammataro L, Messina CG, De Maria R, Messina A. Involvement of interferon regulatory factor-1 in monocyte CD95 expression and CD95-mediated apoptosis. **Cell Death Differ.** 2003, vol. 10(5), pag. 615-7.

- **Zeuner A**, Eramo A, Testa U, Felli N, Pelosi E, Mariani G, Srinivasula SM, Alnemri ES, Condorelli G, Peschle C, De Maria R. Control of erythroid cell production via caspase-mediated cleavage of transcription factor SCL/Tal-1. **Cell Death Differ.** 2003, vol 10(8), pag. 905-13.

- Stassi G, **Zeuner A**, Di Liberto ., Todaro M, Ricci-Vitiani L, De Maria R. Fas-FasL in Hashimoto's Thyroiditis. **Journal Of Clinical Immunology** 2001, vol. 1, pag. 19-23.

- Stassi G, Di Liberto D, Todaro M, **Zeuner A**, Ricci-Vitiani L, Stoppacciaro A, Ruco L, Farina F, Zummo G, De Maria R. Control of target cell survival in thyroid autoimmunity by T helper cytokines via regulation of apoptotic proteins. **Nature Immunology**, 2000, vol. 1 pag. 483-488.

- Ricci-Vitiani L, Conticello C, **Zeuner A**, De Maria R. CD95/CD95L interactions and their role in autoimmunity". **Apoptosis**, 2000, vol.5, pag. 419-424.

- **Zeuner A**, Ricci-Vitiani L, Conticello C, De Maria R. Death in 2000 ways". **Cell Death Differ.** 2000, vol. 11, pag. 1140-1144.

- **Zeuner A**, Eramo A, Peschle C, De Maria R. Caspase activation without death" **Cell Death Differ.** 1999, vol.6, pag. 1075-1080.

- De Maria R*, **Zeuner A***, Eramo A, Domenichelli C, Bonci D, Grignani F, Srinivasula SM, Alnemri ES, Testa U, Peschle C. Negative regulation of erythropoiesis by caspase-mediated cleavage of GATA-1. **Nature**, 1999, vol. 401, pag. 489-493. *I primi due autori hanno contribuito in modo equivalente al lavoro

- De Maria R, Testa U, Luchetti L, **Zeuner A**, Stassi G, Pelosi E, Riccioni R, Felli N, Samoggia P, Peschle C. Apoptotic role of Fas/FasL system in the regulation of erythropoiesis. **Blood**,1999, vol.93, pag. 796-803.

- Prasad NK, Papoff G, **Zeuner A**, Bonnin E, Kazatchkine MD, Ruberti G, Kaveri SV. Therapeutic preparations of normal polyspecific IgG (IV Ig) induce apoptosis in human lymphocytes and monocytes: a novel mechanism of action of IVIg involving the Fas apoptotic pathway. **Journal Of Immunology**, 1998, vol. 161, pag. 3781-90.

- De Maria R, Lenti L, D'Agostino F, **Zeuner A**, Tomassini B, Rippo MR, Testi R. Requirement for GD3 ganglioside in CD95- and ceramide- induced apoptosis. **Science**, 1997, vol.277, pag. 1652-1655.

BOOKS, BOOK CHAPTERS AND WEBSITES

- **Zeuner A,** Palio E. "Le cellule staminali: spunti per un'azione didattica" (Stem cells: a book for schools) . 87 pages, edited by the National Institute of Health, Italy, 2011.
- Website of the COLOMED project, supported by the Italian Ministry of Health: www.colomed.it
- Website of the Molecular Clinical Oncology project "Development of effective cancer therapies based on functional proteomics and Cancer Stem Cell targeting", supported by the Italian Association for Cancer Research: www.airc5x1000staminali.it
- Pedini F, Venneri MA, **Zeuner A**. "Hematopoietic stem/progenitor cells: response to chemotherapy" in Stem Cells and Cancer stem Cells, Volume 6, Springer 2012, pp 333-344.
- Maugeri-Saccà M e **Zeuner A.** "Targeting Self-renewal Pathways in Cancer Stem Cells" in Stem Cells and Cancer stem Cells, Springer 2012.
- Bartucci M, Eramo A, Sette G, Signore M, Palio E, Maugeri-Saccà M, De Maria R, **Zeuner A**. "Cellule staminali da tumori solidi: caratteristiche funzionali e strategie di targeting". edited by the National Institute of Health, Italy, ISTISAN reports, 2010.
- Rizzo A, Palio E, Zeuner A. Stem Cells: present and future. In: Barbaro MC, Salinetti S. La salute nell'astuccio. Edited by the National Institute of Health, Italy 2012. p.25-36.
- Marcello Maugeri-Saccà, **Zeuner A**, and Ruggero De Maria. "Cancer Stem Cells from Solid Tumors: New Tools to Fight Cancer". American Association for Cancer Research, Annual Meeting Education Book 2011.
- **Zeuner A**, Morsilli O, Bartucci M, Pasquini L, Sposi NM, Baiocchi M, Massa A, Cianciulli P, Testa U, Peschle C, De Maria R, Gabbianelli "New therapeutical approaches in the human beta-thalassemia treatment: in vitro and in vivo. In: Taruscio

D, Salvatore M, ed. ISS-NIH collaborative programme on rare diseases: reports of the projects. edited by the National Institute of Health, Italy 2010, ISTISAN reports 10/02, p.228-229.

- **Zeuner A.** and De Maria R. "CD178-Fas Ligand". per LEUCOCYTE TYPING VII, Oxford University Press 2001.
- **Zeuner A** and De Maria R. "CD178" for PROTEIN REVIEWS ON THE WEB, official website of the American National Institutes of Health (2001). www.ncbi.nih.gov/prow
- **Zeuner A.**, Rippo M.R., De Maria R., Testi R. "Caspases". In: Apoptosis: a Laboratory Manual of Experimental Methods. Edited by the Cooperative Immunology Group, 1998.
- De Maria R., **Zeuner A.**, Santoni A., Testi R.. "Triggering of Ca2+ flux by receptor crosslinking in hematopoietic cells". In: Advanced Methodologies in Flow Cytometry. Edited by the Cooperative Immunology Group,1997.

BOARDS AND WORKING GROUPS

1. 22/7/2013: **Working group AIFA/Ministero della Salute/ISS** for the management of "Caso Stamina", Istituto Superiore di Sanità.
2. 1/3/2016: **Working group for the implementation of Public Private Partnership**, Istituto Superiore di Sanità.
3. 1/10/2016: **Working group for translational research on colorectal cancer** (Working Group Colon), Alleanza Contro il Cancro.
4. 1/1/2021: **Member of the Scientific Board of the Italian Association for Cancer Research (AIRC)**.
5. 1/10/2011: **Editorial Board Member, Frontiers in Molecular Targets and Therapeutics.**
6. 3/13/2013: **Editorial Board member, Notiziario dell'Istituto Superiore di Sanità**.
7. 1/2/2020: **Editor of Cancers Special Issue entitled** "In Vitro and In Vivo Models of Colorectal Cancer for Clinical Application".

ABSTRACTS

1) Po A, Silvano M, Miele E, Eramo A, Todaro M, Capalbo C, Salvati V, Sette G, Cucchi D, Besharat ZM, Canettieri G, Di Marcotullio L, Screpanti I, Stassi G, De Maria R, **Zeuner A**, De Smaele E, Ferretti E (2016). Non-canonical Hedgehog/Gli1 signaling drives lung adenocarcinoma stem cells survival and its targeting inhibits CSC-derived tumors. In:

AACR 107th Annual Meeting 2016. Cancer Research, vol. 76, ISSN: 0008-5472, New Orleans, LA (USA), 16-20 April 2016, doi: 10.1158/1538-7445.AM2016-2484

2) Varricchio L, Federici G, Masiello F, Martelli F, Falchi M, Picconi O, Girelli G, Tafuri A, Petricoin E, **Zeuner A**, Migliaccio AR (2016). Phosphoproteomic Landscaping Unveils Constitutive cKIT Activation in Human Erythroblasts from Polycythemia Vera (PV) Patients. In: **58th ASH Annual Meeting**, Blood, vol. 128, ISSN: 0006-4971, doi: 10.1182/blood.V128.22.399.399
3) Colace L, La Torre F, Francescangeli F, De Angelis ML, Contavalli P, D'Andrea V, De Maria R, **Zeuner A** (2016). "Circulating stem cells in colorectal cancer: new tools and potential therapeutic targets." ESCP 28-30 Settembre 2016 **Congresso della European Society of Coloproctology**, Milano.
4) Po A, Silvano M, Cucchi D, Eramo A, Miele E, Salvati V, Sette G, De Maria R, **Zeuner A**, De Smaele E, Gulino A, Ferretti E (2014). HEDGEHOG-GLI SIGNALING PATHWAY IN LUNG CANCER STEM CELLS AND ITS DRUG MEDIATED TARGETING. **56° Annual Meeting of the Italian Cancer Society**, Ferrara, 11-13 September 2014.
5) Po A, Silvano M, Cucchi D, Eramo A, Miele E, Salvati V, Sette G, De Smaele E, De Maria R, **Zeuner A**, Gulino A, Ferretti E (2013). Hedgehog signaling pathway in lung cancer stem cells (LCSC) and its drug mediated targeting. **55° Annual Meeting of the Italian Cancer Society**, Catanzaro 23 – 26 September 2013
6) **Zeuner A**, Federici G, Contavalli P, Petricoin EF, Tirelli V, Masiello F, Girelli G, Alimena G, Tafuri A, Migliaccio G, Migliaccio ARF (2013). Differential Modulation Of cKIT Signaling By CD63 Dictates The Magnitude Of Response To Stem Cell Factor Of Erythroblasts From Adult Blood, Cord Blood and Polycythemia Vera. In: **55th ASH Annual Meeting.** Blood, vol. 122, ISSN: 0006-4971, doi: 10.1182/blood.V122.21.2850.2850
7) Falchi M, Tirelli V, Masiello F, Whitsett C, **Zeuner A**, Migliaccio AR (2013). The Making Of "Erythroid Islands" In HEMA Culture. In: **55th ASH Annual Meeting.** Blood, vol. 122, ISSN: 0006-4971
8) Nastasi T, De Lorenzi R, Palio E, **Zeuner A** (2012). Bringing stem cells to school: teachers and researchers sharing an experience of active learning in Italy. In: **European Meeting on Media and Information Literacy Education, Laboratory on media and information literacy through EMMILE posters.** Milan, 28/02/2012

9) Federici G, Tirelli V, Masiello F, Varricchio L, Girelli G, **Zeuner A**, Petricoin EF, Migliaccio ARF (2012). Different Stress Responses Mediate the Massive Erythroblast Expansion Occurring in Cultures of Human Progenitor Cells Derived From Cord Blood and Adult Blood in the Presence of Glucocorticoid Receptor Agonists. In: **54th ASH Annual Meeting.** Blood, vol. 120, ISSN: 0006-4971, doi: 10.1182/blood.V120.21.2339.2339
10) Hricik T, McKenney AS, Levine RL, Federici G, **Zeuner A**, Petricoin EF, Tafuri A, Alimena G, Tirelli V, Masiello F, Ciaffoni F, Migliaccio ARF (2012). Transcriptosome and Phospho-Proteomic Analyses of Erythroblasts Expanded in Vitro From Normal Donors (ND) and From Patients with Polycythemia Vera (PV). In: **54th ASH Annual Meeting.** Blood, vol. 120, ISSN: 0006-4971, Atlanta, GA, December 8 – 11, 2012, doi: 10.1182/blood.V120.21.2860.2860
11) Tafuri A, Pedini F, Francescangeli F, Signore M, Foà R, Girelli G, De Maria R, **Zeuner A** (2008). Activity of The Bh3 Mimetic Abt-737 on Polycythemia Vera (Pv) Erythroid Precursor Cells. In: Myeloproliferative Disorders-Experimental Therapeutics. In: **50th ASH Annual Meeting.** Blood, vol. 112, ISSN: 0006-4971, San Francisco, California, 06-09/12/2008, doi: 10.1182/blood.V112.11.102.102
12) Martinetti D, Conticello C, **Zeuner A**, De Maria R, Di Raimondo F (2007). Megacaryocyteapoptosis and noxa accumulation asa cause of bortezomib-induced thrombocytemia. In: **12th Congress of the European Hematology Association**, Vienna. Haematologica, vol. 92, p. 128, ISSN: 0390-6078
13) **Zeuner A**, Pedini F, Signore M, Ruscio G, Messina C, Tafuri A, Girelli G, Peschle C, De Maria R (2006). Increased death receptor resistance and FLIP-short expression in polycythemia vera erythroid precursor cells. In: **48th ASH Annual Meeting.** BLOOD, vol. 107, Issue 9, ISSN: 0006-4971, doi.org/10.1182/blood-2005-07-3037
14) **Zeuner A**, Pedini F, Signore M, Messina C, Peschle ER, De Maria R (2004). Defective death receptor signaling in polycythemia vera erythroid precursor cells. In: **46th ASH Annual Meeting and Exposition.** Blood, vol. 102, p. 664A, ISSN: 0006-4971, San Diego, CA, December 4-7, 2004
15) **Zeuner A**, Signore M, Pedini F, Messina C, Peschle C, De Maria R (2004). Ineffective death receptor signaling in polycythemia vera erythroid progenitor cells. In: **The Fourth European Workshop on Cell Death**– Death on the Bosphorus – Istanbul, Turkey 11th – 16th May 2004

16) Pedini F, Felli N, **Zeuner A**, Petrucci E, Testa U, Winkles JA, Peschle C, De Maria R (2004). Multiple members of the TNF superfamily contribute to IFNγ-mediated inhibition of erythropoiesis. In: **The Fourth European Workshop on Cell Death**– Death on the Bosphorus – Istanbul, Turkey 11th – 16th May 2004
17) Conticello C, Pedini F, **Zeuner A**, Patti M, Zerilli M, Stassi G, Messina A, Peschle C, De Maria R (2004). Interleukin 4 production in solid tumors increases cancer cell survival via upregulation of cFlip and BCL-XL. In: **The Fourth European Workshop on Cell Death**– Death on the Bosphorus – Istanbul, Turkey 11th – 16th May 2004
18) **Zeuner A**, Pedini F, Signore M, Messina CG, Girelli G, Peschle C, De Maria R (2003). Defective death receptor signaling in polycythemia vera erythroid precursors cells. In: **45th American Society of Hematology Annual Meeting and Exposition.** San Diego, 6-9 Dicembre 2003.
19) **Zeuner A**, Signore M, Pedini F, Messina CG, Girelli G, Peschle C, De Maria R (2003). Defective death receptor signaling in polycythemia vera erythroid precursors cells. In: **Second International Congress Myeloproliferative Diseases and Myelodisplastic Syndromes.** New York, 16-18 Ottobre 2003.
20) **Zeuner A**, Pedini F, Testa U, Peschle C, De Maria R (2002). "Stem Cell Factor upregulates Bcl-2 family members and protects erythroid precursor cells from chemotherapy-induced apoptosis" **The Third European Workshop on cell death**, Salobrena (Spain) 23-28/2/2002
21) **Zeuner A**, Peschle C, De Maria R (2001). Control of erythroid cell production via caspase-mediated cleavage of transcription factor SCL/Tal-1. In: **43th Annual Meeting American Society of Hematology.** BLOOD, vol. 98, p. 141B, ISSN: 0006-4971, Orlando, FL, December 7-11, 2001
22) **Zeuner A**, Eramo A, Rizzo G, Manzella L, Messina A, Peschle C, Grignani F, De Maria R (2000). Interferon regulatory factor-1 and -2 regulate constitutive and interferon-gamma-induced expression of multiple caspases in monocytic cells. In: **The Second European Workshop on Cell Death** –Apoptosis 2000 Gibilmanna, Sicily April 1st-5th, 2000
23) Eramo A, **Zeuner A**, Felli N, Srinivasula SM, Alnemri ES, Testa U, Condorelli G, Peschle C, De Maria R (2000). "Caspase-Mediated Tal-1 cleavage is required for erythroid cell apoptosis". **The Second European Workshop on Cell Death,** Gibilmanna (PA), 1-5/4/2000.
24) Stassi G, Di Liberto D, **Zeuner A**, Todaro M, Farina F, Peri G, Stoppacciaro A, Cappello F, Ruco L, Grignani F, De Maria R (2000). "FLIP (Flame-1/I-Flice) and BCL-XL protect

Thyrocites from FAS-mediated destruction in Graves' disease". **The Second European Workshop on Cell Death,** Gibilmanna (PA), 1-5/4/2000.

25) De Maria R, **Zeuner A**, Eramo A, Domenichelli C, Bonci D, Grignani F, Srinivasula SM, Alnemri ES, Testa U, Peschle C (1999). Death receptor-activated caspases arrest erythroid differentiation through cleavage of the transcription factor GATA-1. In: **28th Annual Meeting of International Society for Experimental Hematology.** Experimental Hematology, vol. 27, p. 47, ISSN: 0301-472X, Principato di Monaco, 14-19 july 1999, doi: 10.1016/S0301-472X(99)80002-2
26) **Zeuner A**, Eramo A, Manzella L, Messina A, Grignani F, Peschle C, De Maria R (1999). "Interferon Regulatory Factor-1 is required for constitutive and IFN-gamma-induced expression of multiple caspases in monocytic cells". **27mo congresso Gruppo Cooperazione in Immunologia**, Udine 16-18/6/1999.
27) **Zeuner A**, Eramo A, Domenichelli C, Bonci D, Grignani F, Srinivasula SM, Alnemri ES, Testa U, Peschle C, De Maria R (1999). "Death Receptor-activated caspases arrest erythroid differentiation through cleavage of the transcription factor GATA-1". **IV Meeting of Molecular Oncology** (gruppo di Oncologia Molecolare SIC), 12-15 Maggio 1999, Positano (SA) – Italia.
28) **Zeuner A**, Eramo A, Domenichelli C, Bonci D, Grignani F, Srinivasula SM, Alnemri ES, Testa U, Peschle C, De Maria R (1999). "Death Receptor-activated caspases arrest erythroid differentiation through cleavage of the transcription factor GATA-1". **Cell Death and Differentiation Meeting**, Villa Vigoni (CO) 6-8/5/1999
29) **Zeuner A**, De Maria R, Testa U, Peschle C (1998). "Role of Fas and FasL in red blood cell homeostasis". **The First European Workshop on Cell Death**, Gran Sasso (AQ), 21-25/10/1998
30) De Maria R, **Zeuner A**, Eramo A, Testa U, Peschle C (1998). "FasL induces erythroid differentiation arrest through caspase-mediated cleavage of the transcription factor GATA-1". **The First European Workshop on Cell Death**, Gran Sasso (AQ), 21-25/10/1998
31) **Zeuner A**, De Maria R, Testa U, Peschle C (1998). "A role for Fas and FasL in the regulation of erythropoiesis". **26mo congresso Gruppo di Cooperazione in Immunologia**, Viterbo 10-12/6/1998.
32) **Zeuner A**, De Maria R, Testa U, Peschle C (1998). "A role for Fas and FasL in the regulation of erythropoiesis". 3° **Workshop Gruppo Italiano di Cooperazione in Immunologia** (Priming di risposte immunitarie), Siena 22-24/2/1998.

33) **Zeuner A**, Papoff G, Cascino I, Ruberti G :"Caratterizzazione dei domini di Fas/APO-1 e delle proteine del DISC importanti nell' idrolisi della sfingomielina e nella produzione di ceramide." **Congresso AGI-SIG-SIBBM**, Riccione 4-7/10/1996.

34) **Zeuner A**, Bartucci M, Morsilli O, Sposi NM, Baiocchi M, Cianciulli P, De Maria R, Gabbianelli M. "Therapeutic potential of stem cell factor in the human beta-thalassemia treatment: in vitro and in vivo studies". **International Congress Rare Diseases and Orphan Drugs**, October 27th – 31st 2008 Istituto Superiore di Sanità, Roma.

REFEREE FOR INTERNATIONAL SCIENTIFIC JOURNALS

Referee for the following scientific journals: **Nature Communications, Cell Death and Differentiation, PLOSone, Cell Death and Disease, Stem Cells, International Journal of Clinical and Experimental Pathology, Oncotarget, Frontiers in Oncology, Oncogene, Science Translational Medicine, Frontiers in Pharmacology, Cancer Letters, BMC Cancer, Molecular and Cellular Biology, Clinical Cancer Research, Cancer Research.**

PROJECT EVALUATIONS FOR SCIENTIFIC INSTITUTIONS

- Referee for Hong Kong University, Hong Kong, China.

- Referee for Swiss Cancer League, Switzerland.

- Referee for Agency for Health Quality and Assessment of Catalonia, Spagna.

- Referee for National Science Centre, Cracovia, Poland.

- Referee for French National Research Agency, France.

PLENARY LECTURES, CONFERENCES AND MEETING PRESENTATIONS

- **Istituto Superiore di Sanità,** presentation entitled: "Stress and cancer, molecular liaisons", meeting epiWE, epigenetics of women violence, 08/11/2022. Chairman Dr. S. Gaudi.
- **Istituto Superiore di Sanità,** presentation entitled: "Stress, PSTD and gynecologic cancers: molecular mechanisms and preventive strategies", meeting epiWE, epigenetics of women violence, 12/02/2019. Chairman Dr. S. Gaudi.
- **Università di Catania,** ***plenary lecture*** entitled "Cancer stem cells", 8/4/2016. Chairman Prof. M. Gulisano.
- **University of Bern, Department of Pharmacology,** plenary lecture entitled "Regulatory mechanisms in Normal and Neoplastic Hematopoiesis", 2/3/2005. Chairman Prof. H.U. Simon.

- **Associazione Donatrici Italiane Sangue di Cordone Ombelicale (ADISCO),** plenary lecture entitled "Cord Blood Stem Cells", 12/12/2008.
- **Comune di Sambuca (PA),** conference entitled "Prevenire In Cancro Nella Vita Quotidiana: Una Scelta di Salute", 22/2/2018.
- **Istituto Superiore di Sanità,** presentation at meeting "La salute nell'astuccio" entitled "Stem Cells and Research at schools", 17/10/2011.
- **Istituto Superiore di Sanità,** plenary lecture entitled "From cells to society, scientific research in a changing world", 5/2/2018.
- **Università di Salerno,** presentation entitled "Cell Death Mechanisms In Hematopoietic and Neural Stem/Progenitor Cells, international meeting "Cell Stress and Apoptosis", Fisciano (SA), 4/7/2008.
- **Istituto Superiore di Sanità,** presentation entitled "ABT-737 as a potential stem cell-targeting agent in non-small cell lung cancer" al B2B Meeting Abbvie 27/3/2013.
- **Università La Sapienza,** presentation entitled "Preclinical models in colorectal and lung cancer: Insights into stemness, plasticity and developmental pathways" Symposium Liquid Biopsy/Tracking Cancer 29-30/4/2016.

COURSES AND LESSONS

23/11/2022: University of Siena, lecture entitled "Stem Cells, Cancer and Anticancer Therapies".

7/4/2016: Science course for the Lincei Academy (**Polo Catania-Messina)** entitled "Stem Cells, the new frontier of Biomedical research".

10/7/2017-12/7/2017: Managing director and teacher of the international course "Colorectal cancer and stem cells: from theory to practice", Istituto Superiore di Sanità.

29/6/2017-1/7/2017: Teacher at the Post-lauream Superior School of Catania (University of Catania) with a course entitled "Frontiers in Stem Cells, Cell Therapy and Regenerative Medicine". Coordinators Proff. M. Gulisano and F. Sinatra.

20/5/2014: Course at Liceo Scientifico B. Croce (Roma) entitled "La ricerca sulle cellule staminali: stato dell'arte e questioni etiche".

13/4/2016: Course at Liceo Statale M. Montessori (Roma) organized by Associazione Italiana per la Ricerca sul Cancro in collaboration with Ministero dell'Istruzione, dell'Università e della Ricerca (MIUR) and Associazione Nazionale Dirigenti Pubblici e Alte Professionalità della Scuola (ANP).

6/6/2016-16/6/2016: Team Leader at the course "Le Cellule Staminali dalla teoria alla pratica" project Alternanza Scuola-Lavoro ISS (Legge 107/2015).

13/2/2017-24/2/2017: Team Leader at the course "Le Cellule Staminali dalla teoria alla pratica" project Alternanza Scuola-Lavoro ISS (Legge 107/2015).

23/11/2017: Course at Istituto Comprensivo Fiume Giallo (Roma) organized by Associazione Italiana per la Ricerca sul Cancro in collaboration with Ministero dell'Istruzione, dell'Università e della Ricerca (MIUR) and Associazione Nazionale Dirigenti Pubblici e Alte Professionalità della Scuola (ANP).

31/10/2017: Course at Liceo Scientifico Statale A. Labriola (Roma) organized by Associazione Italiana per la Ricerca sul Cancro in collaboration with Ministero dell'Istruzione, dell'Università e della Ricerca (MIUR) and Associazione Nazionale Dirigenti Pubblici e Alte Professionalità della Scuola (ANP).

13/2/2018-23/2/2018: Team leader at course "Le Cellule Staminali dalla teoria alla pratica" project Alternanza Scuola-Lavoro ISS (Legge 107/2015).

20/2/2018: Course at Istituto Comprensivo G. Tomasi Da Lampedusa (Santa Margherita Belice, PA) organized by AIRC.

21/2/2018: Course at Istituto Comprensivo S. Bivona (Menfi, AG) organized by AIRC.

22/2/2018: Course at Istituto Comprensivo Fra Felice Da Sambuca (Sambuca, PA) organized by AIRC.

18/12/2018-14/6/2019: Team leader and teacher in project "PON in filiera" (Prot. 3781 5/4/2017) entitled "Dalla ricerca alla terapia: il ruolo della sperimentazione nella lotta contro i tumori" in collaboration with Istituto Nazionale dei Tumori Regina Elena (IFO).

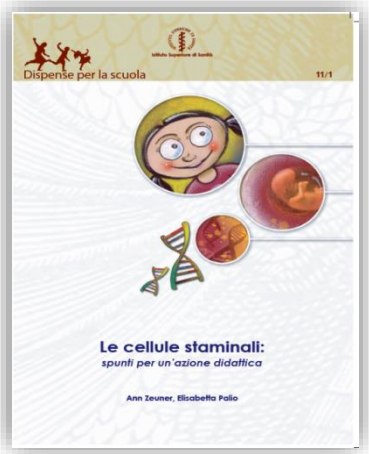
27/9/2019: **Tutor in project BEES** at Istituto Superiore di Sanità.

24/2/2020: **Course at Istituto Comprensivo Fratelli Cervi** (Roma) organized by Associazione Italiana per la Ricerca sul Cancro in collaboration with Ministero dell'Istruzione, dell'Università e della Ricerca (MIUR) and Associazione Nazionale Dirigenti Pubblici e Alte Professionalità della Scuola (ANP).

4/11/2020: **Course at Istituto di Istruzione Secondaria V. Papareschi** (Roma) organized by Associazione Italiana per la Ricerca sul Cancro in collaboration with Ministero dell'Istruzione, dell'Università e della Ricerca (MIUR) and Associazione Nazionale Dirigenti Pubblici e Alte Professionalità della Scuola (ANP).

BOOKS, CHAPTER AND WEB PAGES

1. Chapter: De Angelis ML, Francescangeli F, **Zeuner A**, Baiocchi M. "Orthotopic Xenografts of Colorectal Cancer Stem Cells Methods". Springer, Methods in Molecular Biology, 2022, 2429, pp. 555–565. doi: 10.1007/978-1-0716-1979-7_39
2. Chapter: **Zeuner A**, De Angelis ML, Francescangeli F, "Gut Microbiota and Colorectal Cancer", Reference Module in Food Science, Elsevier, 2022, ISBN 9780081005965, https://doi.org/10.1016/B978-0-12-819265-8.00029-2.
3. Chapter: Pedini F, Venneri MA, **Zeuner A**. "Hematopoietic stem/progenitor cells: response to chemotherapy" in Stem Cells and Cancer stem Cells, Volume 6, Springer 2012, pp 333-344.
4. Chapter: Maugeri-Saccà M e **Zeuner A.** "Targeting Self-renewal Pathways in Cancer Stem Cells" in Stem Cells and Cancer stem Cells, Springer 2012. Vol. 5 pag. 25-36.
5. Book: **Zeuner A.** Palio E. **"Le cellule staminali: spunti per un'azione didattica". 87 pagine, Collana Dispense per la Scuola, Edizioni Istituto Superiore di Sanità, 2011.** The book has been recommended by the Ministero dell'Istruzione, dell'Università e della Ricerca (**Prot. 0000531-01/02/2012**).



6. Chapter: Rizzo A, Palio E, **Zeuner A.** Le cellule staminali: presente e futuro. In: Barbaro MC, Salinetti S, ed. La salute nell'astuccio: dall'ISS spunti per un'azione didattica. Roma, 17 ottobre 2011. Atti. Roma: Istituto Superiore di Sanità; 2012. (Dispense per la scuola 12/01). p.25-36.
7. Chapter: Marcello Maugeri-Saccà, **Zeuner A**, and Ruggero De Maria. "Cancer Stem Cells from Solid Tumors: New Tools to Fight Cancer". American Association for Cancer Research, Annual Meeting Education Book 2011.
8. Chapter: Conte E, Manzella L, **Zeuner A**, Sciacca B, Cocchiero G, Conticello E, Zammataro L, De Maria R, Messina A. "Fas expression in Monocytic cells". In: The Biology and Pathology of innate immunity mechanisms (Advances In Experimental Medicine And Biology Volume 479), Kluwer Academic Publishers, ISBN: 0-306-46409-8
9. Web page: **Zeuner A.** and De Maria R. "CD178-Fas Ligand". per LEUCOCYTE TYPING VII, Oxford University Press 2001.

10. Web page: **Zeuner A** and De Maria R. “CD178” per PROTEIN REVIEWS ON THE WEB sito ufficiale del National Institute of Health (2001). Sito Web: www.ncbi.nih.gov/prow.
11. Chapter: **Zeuner A.**, Rippo M.R., De Maria R., Testi R. “Caspases”. In: Apoptosis: a Laboratory Manual of Experimental Methods. Edizioni Gruppo di Cooperazione in Immunologia, Editors Boraschi, Cossù & Cossarizza, L’ Aquila, Marzo 1998.
12. Chapter: De Maria R., **Zeuner A.**, Santoni A., Testi R.. "Triggering of Ca2+ flux by receptor crosslinking in hematopoietic cells". In: Advanced Methodologies in Flow Cytometry. Edizioni Gruppo di cooperazione in Immunologia, 1997.

CREATION AND COORDINATION OF INTERNET SITES

• **Creation and coordination of the COLOMED Project website**, www.colomed.it. The site, in Italian and English, consists of 14 sections, 8 of which are dedicated to the prevention and treatment of colorectal cancer. The site includes information material on cancer prevention in 7 languages for citizens of European and North African countries.

• **Creation and coordination of the AIRC 5 per mille project website** "Development of effective cancer therapies based on functional proteomics and Cancer Stem Cell targeting", www.airc5x1000staminali.it. The website (no longer active) contained medical-scientific information on cancers of the colorectal and lung cancer and updates on the related AIRC project.

SCIENCE COMMUNICATION AND DISSEMINATION

They include the publication of articles in newspapers, weekly and specialized magazines, the creation of scientific dissemination websites, webinars, radio and television interviews. Since 2018, Dr. Zeuner has been called to be part of the "100 EXPERTS" project conceived by the Pavia Observatory and the Gi.U.Li.A Association and developed with the Bracco Foundation with the support of the Representation in Italy of the European Commission, which brings together the leading Italian experts in scientific areas with the aim of giving visibility to authoritative female voices.