CURRICULUM VITAE

1) Date of preparation of CV: March 2023

2) Name and Citizenship: Antonio Iavarone, M.D., USA, Italy

3) Education

- Liceo Ginnasio "Pietro Giannone", Benevento, Italy (Italian equivalent of College) 1972-1976. Degree achieved: Maturita' classica (July 1981).
- Medical School, Catholic University, School of Medicine, Rome, Italy (1981-1987). Degree achieved: Medical Doctor (Summa cum Laude, July 1987).

4) Postdoctoral Training

Internship

- Pediatric Oncology Post-graduate Training, Division of Pediatric Oncology, Catholic University, School of Medicine, Rome, Italy (1989-1991).

Residency

- Residency in Pediatrics, Catholic University, School of Medicine, Rome, Italy (1987-1991).

Post-doctoral Fellowship

- Research Fellow, Preuss Laboratory for Molecular Neuro-oncology, Brain Tumor Research Center, University of California at San Francisco (UCSF) (12/1990-8/1994).
- Research Fellow, Howard Hughes Medical Institute and Cell Biology and Genetics Program, Memorial Sloan-Kettering Cancer Center, New York (9/1994-8/1998).

5) Board qualification

- Italian Medical Board (Certification achieved in November 1987).
- Italian Board in Pediatrics (Certification achieved in July 1991).

6) Professional organizations and Societies

- American Association for Cancer Research (AACR).
- American Society of Clinical Oncology (ASCO).
- The Harvey Society.
- The Society for Neuro-Oncology (SNO).

7) Academic appointments

- Assistant Professor, Division of Pediatric Oncology, Department of Pediatrics, Catholic University, School of Medicine, Rome, Italy (3/1995-9/1998).
- Assistant Professor, Department of Neurology and Department of Molecular and Developmental Biology (DMB), Comprehensive Cancer Center, Albert Einstein College of Medicine, Bronx, New York (9/1998-6/2001).

- Associate Professor, Department of Neurology and Department of Molecular and Developmental Biology (DMB), Comprehensive Cancer Center, Albert Einstein College of Medicine, Bronx, New York (6/2001-8/2002).
- Associate Professor, Department of Neurology and Department of Pathology, Institute for Cancer Genetics, Member of Herbert Irving Comprehensive Cancer Center, Columbia University, New York (9/2002-4/2010).
- Full Professor with Tenure, Department of Neurology and Department of Pathology, Institute for Cancer Genetics, Member of Herbert Irving Comprehensive Cancer Center, Columbia University, New York (4/2010-9/2022).
- Full Professor with Tenure, Department of Neurosurgery and Department of Biochemistry, Miller School of Medicine, University of Miami (9/2022-Present).
- Deputy Director, Sylvester Comprehensive Cancer Center, Miller School of Medicine, University of Miami (9/2022-Present).

8) Honors

- Summa (110/110) Cum Laude, Catholic University, School of Medicine, Rome, Italy (1987).
- Summa (50/50) Cum Laude Department of Pediatrics, Catholic University, School of Medicine, Rome, Italy (1991).
- Fellow, EORTC-NCI (1991).
- Award, American Society of Clinical Oncology (ASCO, 1992).
- Young Investigator Award "Cancer and the Cell Cycle" Symposium, Lausanne (1996).
- Sinsheimer Scholar Award (1999).
- Fellow, Robert Steel Foundation for Pediatric Cancer Research (1992).
- Physician Fellow, Howard Hughes Medical Institute (HHMI, 1992).
- Fellow, Charles Revson Foundation (1996).
- Mediterranean Award for Sciences and Research, Mediterranean Foundation (2008).
- Award for Excellence in Adult Translational Research, Society for NeuroOncology (SNO, 2015).
- Rose Winer Levine Lecturer, Dana-Farber Cancer Institute (2017).

9) Leadership

- Director of the Columbia University Physical Sciences in Oncology Center (PS-OC) for the integration of big data in experimental and clinical oncology funded by the National Cancer Institute (NCI)-National Institute of Health (NIH) (June 2015-present).
https://physics.cancer.gov/network/ColumbiaUniversityCancerInstitute.aspx
https://psoc.c2b2.columbia.edu/index.php/center-directors/

- Chair of the CANCER GENOME ATLAS-TCGA Working Group for the Big Data Analysis of Low Grade Glioma-Glioblastoma (AWG LGG-GBM) (December 2013-present).
https://tcga-data.nci.nih.gov/docs/publications/lgggbm_2016/

Cell, 164:550-563, 2016;

- Director of the Genomic Landscape In NF1-mutant Glioma (The LANDING Consortium), the largest international network of investigators for the collection and analysis of glioma tumors in patients with Neurofibromatosis-type 1 (June 2016-present).

- NCI Outstanding Investigator Award (R35): application R35-CA253183 reviewed on 2/22/2021 received the Impact Score: 10.

10) Grant support

Completed Research Support

- Fellowship from the Italian Association for Cancer Research (AIRC) (1989-1991).
- Exchange Fellowship from EORTC-NCI (1991-1992).
- Fellowship from the Robert Steel Foundation for Pediatric Cancer Research (June 1992).
- Fellowship for Physicians from Howard Hughes Medical Institute (January 1992-December 1995).
- Fellowship from the Charles Revson Foundation of the Clinical Scholars Training Program of Memorial Sloan-Kettering Cancer Center, New York (February 1996-February 1998).
- Principal Investigator, American Cancer Society Institutional Research Grant. (11/1/1999-10/31/2000).
- Principal Investigator, Research Grant from L.I.L.A.C. (Long Island League to Abolish Cancer) (2000-2019).
- Principal Investigator, Charlotte Geyer Cancer Foundation (8/1/2005-7/31/2006).
- Principal Investigator, Activities to Promote Research Collaborations (APRC) from NCI-NIH, collaborative grant supplement to R01-CA85628 (4/1/2003-3/31/2005).
- Principal Investigator, NIH/NCI R01-CA85628-10 “Id2 in cell cycle regulation and cancer”. (4/5/2000-7/31/2013).
- Principal Investigator NIH/NCI R01-CA127643-03 “Mechanisms and regulation of post-translational modifications of Id proteins”. (12/1/2007-11/30/2013).
- Principal Investigator, NIH/NINDS R01-NS061776-01, “Computational analysis of human high-grade gliomas”. (9/1/2009-8/31/2015).
- Co-P.I, NIH/NCI R01-CA131126-01 “The Ureb1 ubiquitin ligase in neural stem cells and cancer” (9/1/2008-7/31/2013, P.I. Anna Lasorella).
- Co-Investigator, NIH/NCI CA101644-07 “The role of Id protein in tumor development and angiogenesis in the brain”. (6/1/2009-8/31/2015; P.I. Anna Lasorella).
- Principal Investigator, Brain Tumor and Development Fellowships Program of the Welfare Ministry of Italy supporting Fellowships and Research costs for Ten Post-Doctoral Fellows (1/1/2007-6/30/2016).
- Principal Investigator, The Chemotherapy Foundation grant “The N-Myc oncoprotein and its ubiquitin ligase Ureb1 as master regulators of cancer stem cells in malignant glioma” (1/1/2008-12/31/2017).

- Principal Investigator, Collaborative Research Agreement with Astra Zeneca "Characterization and therapeutic exploitation of determinants of drug sensitivities in gliomasphere cultures from GBM patients" (7/1/14-6/30/18).
- Principal Investigator, Collaborative Research Agreement with Taiho "Efficacy study of TAS-120 in primary GBM cells harboring FGFR-TACC fusions" (12/1/15-12/1/17).
- Co-Investigator, "NIH/NCI Grand Opportunity" RC2CA148308-0110 "Systems Biology of Tumor Progression and Drug-Resistance" (9/30/2010-8/31/2018).
- Co-Investigator, NIH/NCI R01CA185486 "Reconstruction of Evolutionary Networks using Cross-Sectional Genomic Data" (4/1/2014-3/31/2018; P.I. Anna Lasorella, Raul Rabadan).
- Principal Investigator, NIH/NCI-R01CA179044, "Identification and modeling of driver genetic modules in glioblastoma". (12/1/2013-12/1/2018).
- Principal Investigator, NIH/NCI-R01CA178546, "The mechanisms driving brain oncogenesis by FGFR-TACC gene fusions". (7/1/2014-6/30/2019).
- Principal Investigator, NIH/NCI-1U54CA193313, "Topology of cancer evolution and heterogeneity" (5/19/2015-4/30/2021).
- Principal Investigator, NIH/NCI-1R01CA190891, "The role of the LZTR1 ubiquitin ligase in stem cells and cancer" (5/15/2015-4/30/2021).
- Principal Investigator, Children Tumor Foundation (CTF) Synodos Network Project "Identification, functional characterization and therapeutic exploitation of the integrated landscape of genetic and epigenetic alterations in glioma from patients with NF1" (10/1/1015-10/1/2020).
- Co-Principal Investigator, NIH-NCI Care Project for the single cell sequencing analysis of human glioblastoma, (9/1/2018-6/30/2022).
- Principal Investigator, NIH/NCI-1R01CA239698, "The HUWE1 ubiquitin ligase regulates mitosis, genomic stability and oncogenesis" (7/1/2019-6/30/2022).

Active Research Support

- Principal Investigator, NIH/NCI-R35CA253183, "Oncogenic mechanisms, molecular stratification and therapeutic targets of brain tumors" (9/24/2021-8/31/2028).
- Principal Investigator, Department of Defense (DOD) NF190039, "Dissecting the tumor microenvironment of glioma from Neurofibromatosis 1 patients by single cell analysis" (6/1/2020-5/31/2023).
- Principal Investigator (MPI), NCI- R01CA268592, "Evolution and targeting of the functional states of glioblastoma" (6/30/2022-6/29/2027).
- co-Investigator, R01CA270365, "Circulating Cell-free DNA Methylation as an accurate tool for detection and clinical follow-up of Glioma" (04/01/2023-03/31/2028).
- Deputy Director, P30CA240139, "The Sylvester Cancer Center Support Grant" (07/01/2019-06/30/2024).

11a) Other professional activities: Editorial

Meeting Organizer

- 3rd International Symposium “Basic-Helix-Loop-Helix genes: Regulators of Normal Development and Indicators of Malignant Transformation”, May 9-10, 2005, Rome, Italy.
- Organizer and Chair of the session “Quantitative Biology in Neuro-Oncology” at the Society for NeuroOncology (SNO) Annual Meeting, San Francisco, California, November 16-19, 2017.
- Organizer and Chair of the Major Symposium “The Next Generation of Precision Cancer Medicine: Recognizing and Exploiting the Complexity, AACR Annual Meeting March 29-April 3, 2019, Atlanta, Georgia.
- Organizer and Chair of the session “Mechanisms of Tumor Evolution and Drug Resistance” at the Society for NeuroOncology (SNO) Annual Meeting, Phoenix, Arizona, November 21-24, 2019.
- Organizer and Chair of the Section “Molecular and Cellular Biology, Genetics” at the AACR Annual Meeting 2021, April-May 2021.

Editorial board membership

- Editorial board member of *Science Signaling* (2015-present).
- Editorial board member of *Cancer Research* (2011-2015).
- Editorial board member of *Cell Division* (2009-present).

Reviewer for the following journals:

- Nature
- Science
- Cell
- Nature Genetics
- Nature Medicine
- Nature Cell Biology
- Nature Biomedical Engineering
- Nature Biotechnology
- Science Signaling
- Developmental Cell
- Molecular Cell
- Genes & Development
- Neuron
- Cell Reports
- EMBO Journal
- EMBO Reports
- EMBO Molecular Medicine
- ELife
- PLOS
- PLOSOne
- Molecular and Cellular Biology
- Journal of Cell Biology
- Journal of Neuroscience

- Oncogene
- Journal of Clinical Investigation
- Cancer Research
- Clinical Cancer Research
- Cell Growth and Differentiation
- International Journal of Cancer
- Journal of Neuroscience Research
- Journal of Neuroncology
- The FASEB Journal
- Neuroscience
- Brain Research
- Neural Development
- Molecular Brain Research
- Cell Death and Differentiation.

11b) Other professional activities: Consultative

- Permanent Member of CSRS (Cellular Signaling and Regulatory Systems) Study Section, NIH, July 1, 2008-June 30, 2012.
- Ad hoc reviewer for P01 site visit for the National Cancer Institute/National Institutes of Health (NCI/NIH), June 2002, June 2003.
- Ad hoc reviewer, NCI subcommittee C, August 2002.
- Ad hoc Member of CSD (Cell Signaling and Dynamics) Study Section, NIH, October 12-13, 2006; February 15-16, 2007.
- Ad hoc Member of CSRS (Cellular Signaling and Regulatory Systems) Study Section, NIH, June 7-8, 2007; January 31-February 1, 2008.
- Ad hoc Member of MONC (Molecular Oncogenesis) Study Section, NIH, September 24-25, 2007; June 9-10, 2008.
- Ad hoc reviewer for project grants submitted to the Association for International Cancer Research, United Kingdom, March 2008.
- Member of the Cancer Research UK (CRUK) Expert Review Panel for the Evaluation of CRUK Programme Awards, September 2014.
- Member of the Scientific Advisory Board of the Biotechnology company Angiogenex, 2001- present.
- Member of the Steering Committee of the Human Genetic Foundation Institute (HuGeF) in Turin, Italy (November 2016-Present).
- Member of the Cancer Research UK (CRUK) Expert Review Panel for the Evaluation of CRUK Programme Awards, February 2017.
- Permanent Member of CG (Cancer Genetics) Study Section, NIH, July 1, 2016-June 30, 2022.
- Member of the Peer Review Panel for the evaluation of NIH-RFA-CA-15-014 “Research Centers for Cancer Systems Biology Consortium (CSBC Research Centers)” (U54), June 22-23, 2017.
- Member of the Advisory Committee of the Pan-Asian Glioma Genome Atlas (AGGA) project (May 2017-present).

- Member of the Scientific Advisory Board of AIMED-Bio (April 2019-present).
- Chair of the Scientific Advisory Board of the SIRIC-CURAMUS Cancer Center at the Pitie-Salpetriere Hospital-Curie University, Paris (France, November 2019).
- Member of the Scientific Advisory Board of the Dana Farber-Harvard Comprehensive Cancer Center (Boston, December 2019, October 2020).

Selected invited lectureships

- October 21, 2002. 2nd International Symposium "Basic Helix-loop-Helix genes: Regulators of Normal Development and Indicators of Malignant Development", Amsterdam, Netherlands.
- November 16-18, 2003. "Molecular Differentiation of Benign and Malignant Pheochromocytomas and Neuroblastomas", Banbury Center, Cold Spring Harbor Laboratory.
- September 9, 2005. Merck Research Laboratories. Boston.
- February 10, 2006. Memorial Sloan Kettering Cancer Center, New York.
- October 20, 2006. European Institute of Oncology (IEO), Milan, Italy.
- October 22-27, 2006. Ubiquitin – New insights into regulation and function in chronic diseases and cancer. The Hebrew University of Jerusalem, Israel.
- May 17-18, 2007. 4th International Symposium on Basic Helix-Loop-Helix Genes: Development and Diseases. Kyoto, Japan.
- August 28, 2007. MD Anderson Cancer Center, Houston, Texas.
- November 5, 2007. 4th annual symposium Christopher Reeve "Hot Topics in Stem Cell Biology", satellite symposium of the 37th Neuroscience meeting, San Diego, California.
- March 18, 2008. The Beatson Institute, Glasgow, UK.
- June 15-20, 2008. FASEB 2008 Meeting "Ubiquitin and cellular regulation". Saxton River, Vermont.
- July 5-8, 2008. 20th Meeting of the European Association for Cancer Research (EACR20), Lyon, France.
- December 17, 2008. Ohio State University, Columbus, Ohio.
- May 7-8, 2009. 5th International Symposium on Basic Helix-Loop-Helix Genes: Development and Diseases. London, UK.
- September 22-26, 2009. EMBO Conference "Ubiquitin and ubiquitin-like modifiers in health and disease", Riva del Garda, Italy.
- November 19, 2009. The New York Academy of Sciences "Systems Biology Meets Developmental Biology"
- December 2, 2009. Indiana University Medical School, Indianapolis, Indiana.
- Chairperson of the session "Genomics and Genetics of Brain Cancers: Approaches to "Personalize" Brain Tumor Therapy" at the AACR Special Conference "Genetics and Biology of Brain Cancer", San Diego, December 12-15, 2009.
- October 22, 2010. University of California at San Francisco 2010 Cancer Center Symposium "The Biology and Treatment of Brain Cancers".

- The 6th BHLH International Symposium, Transcriptional Control of Development and Disease, May15-17, 2011, Shanghai, China. Lecture on “Neural stem cells and Cancer”.
- AACR Meeting, March 31-April 4, 2012 Chicago. “Current Concepts and Controversies in Organ Site Research Session Title: Adult and Pediatric Brain Tumors: Current Concepts and Controversies.
- April 23, 2012, Memorial Sloan Kettering Cancer Center, New York, “The master regulators of stem cells and cancer in the brain”
- MISAM 2013 Primary and Metastatic Brain Cancer, Montreal, Canada, June 11-14, 2013 Lecture on “The drivers of oncogenesis and master regulators of glioblastoma”.
- Montreal Neurological Institute Retreat, October 25-27, 2013, St. Sauveur, Quebec, Canada.
- November 20-24, 2013. World Federation of Neuro-Oncology Meeting/Society for Neuro-Oncology's 18th Annual Scientific Meeting. Lecture on “The drivers of oncogenesis and master regulators of glioblastoma”.
- June 6-8, 2014, Children’s Tumor Foundation meeting in Washington, DC. Lecture on “The landscape of genetic alterations and opportunities for personalized therapy in brain tumors”.
- October 13, 2015, Georgetown University, Washington, Keynote Speaker “The Road to the future: personalized therapy of cancer”.
- November 11-13, 2015, The Preuss Foundation Seminar in La Jolla, California on “Changing the Game: Opportunities and Challenges for a New Generation of Primary Brain Tumor Therapeutics”.
- November 18-22, 2015. Society for Neuro-Oncology (SNO) Annual Meeting Presentation, San Antonio, Texas, "Therapeutic vulnerabilities and resistance mechanisms for the precision medicine of glioblastoma" selected for Adult Translational Research Award.
- March 1, 2016. Symposium on Precision Medicine in the Region of Southern Denmark, Odense, Denmark, Keynote lecture, “Precision medicine and drivers of glioblastoma”
- March 30, 2016. BIO KOREA Annual Meeting, Seoul, Korea. Invited Lecture on “Personalized Cancer Medicine”.
- September 8, 2016. University of Luxembourg, Keynote Lecture “The drivers of oncogenesis and therapeutic opportunities in glioblastoma”.
- September 23, 2016, Cancer Stem Cell Conference, Case Western Reserve University, Cleveland (Ohio), Keynote Speaker, “The ID2-VHL-HIF Pathway for the Cancer Stem Cell State”.
- March 28, 2017. Dana Farber Cancer Institute, Harvard Medical School, Boston. The Rose Winer Levine Lecture “The Drivers of Oncogenesis of Malignant Glioma”.
- May 4, 2017. World Federation of NeurOncology (WFNO) meeting, Invited WFNOS-EORTC Educational lecture “Fusion genes in glioma”.
- June 13, 2018. Manchester Cancer Research Centre, Manchester, UK. Invited Lecture “Mechanisms of oncogenesis and precision therapy of brain tumors”.

- November 13-17, 2018. Society for Neuro-Oncology (SNO) Annual Meeting, New Orleans, Louisiana, Invited Speaker at the Sunrise Session “Clonal Evolution of Adult and Pediatric Glioma”. Title of the Lecture: “Functional characterization of tumor and non-tumor cells in glioblastoma”.
- March 14-16, 2019. The 3rd Annual Meeting of Society for Neuro-Oncology of China, Xian, China. Keynote Lecture “Mechanisms of oncogenesis and precision medicine of glioblastoma”.
- March 29-April 3, 2019. Invited Speaker and Chair of the Major Symposium “The Next Generation of Precision Cancer Medicine: Recognizing and Exploiting the Complexity”, AACR Annual Meeting, Atlanta, Georgia. Title of the Lecture: “Biological pathway-based tumor classification to inform pharmacological vulnerability”.
- April 17, 2019. Massachusetts General Hospital (MGH) Center for Cancer Research. Invited Lecture “The mechanism of oncogenesis of glioma”.
- June 20, 2019. Mayo Clinic Arizona, Phoenix, Arizona. Invited Lecture, Mayo Clinic Science of Medicine Seminar Series. Title of the Lecture: “The drivers of oncogenesis of brain tumors: a model for precision medicine”.
- July 3-5, 2019. The British Neuro-Oncology Society Annual Meeting, London, UK, Keynote Lecture “Mechanisms of oncogenesis and precision medicine of glioblastoma”.
- September 26-28, 2019. JCA-AACR Joint Sessions at the 78th Annual Meeting of the JCA, in Kyoto, Japan. Invited Lecture: “The mechanism of glioma progression and evolution”.
- November 16-19, 2017. Society for Neuro-Oncology (SNO) Annual Meeting, San Francisco, California, Invited Speaker at the Sunrise Session “Clonal Evolution of Glioma”.
- November 7, 2019. Tulane Cancer Center, New Orleans. Invited Lecture “The mechanism of oncogenesis and precision therapy of glioma”.
- November 22, 2019. Society for Neuro-Oncology (SNO) Annual Meeting, Phoenix, Arizona, Invited Speaker at the Sunrise Session “Noncoding Epigenomics and Genomics of CNS Tumors”. Title of the Lecture: “The molecular landscape of glioma in patients with Neurofibromatosis type 1”
- November 24, 2019. Society for Neuro-Oncology (SNO) Annual Meeting, Phoenix, Arizona, Invited Speaker and Chair of the Sunrise Session “Mechanisms of Tumor Evolution and Drug Resistance”. Title of the Lecture: “Biological pathway-based evolution of glioma to inform pharmacological vulnerability”.
- April 10, 2021. Section Chair for the AACR Annual Meeting 2021 Title of the Session: “Multiomics and Single Cell Deconvolution of Cancer: From Discovery to Patient Stratification and Treatment”.
- November 21, 2021. Society for Neuro-Oncology (SNO) Annual Meeting, Boston, Massachusetts, Invited Speaker of the Session “Single Cell Sequencing”. Title of the Lecture: “Functional states and multi-omics of sporadic and syndromic glioma”.

-May 19, 2022. Society for Neuro-Oncology (SNO) Brain Tumor Meeting, Berlin, Germany, Internationally renowned plenary speaker. Title of the Lecture: "Mechanisms of oncogenesis and precision medicine of glioblastoma"
-June 27, 2023, *Gordon Research Conference* Basic Mechanisms to Clinical Trials in Brain Tumors, Smithfield, Rhode Island, Invited Speaker. Title of the Lecture: "Next-Generation Multi-Omics Classification and Therapeutic Stratification of Glioblastoma"
-August 8, 2023. HKUST Red Bird Visiting Scholars Lecture Series, Hong Kong, Chine - Invited Speaker of the Session Title of Lecture: “Next Generation Classification and Therapeutic Stratification of Glioma”
-November 18, 2023. Society for Neuro-Oncology (SNO) Annua Meeting, Vancouver, Canada. Invited Speaker
-December 4, 2023. AICC Translational and Precision Medicine International Meeting, San Basilio, Italy, Key Note Speaker. Title of the Lecture: “Next-generation multi-omics classification and therapeutic stratification of tumor subtypes”

12) Bibliography

Original, peer reviewed articles

1. Masullo C., Pocchiari M., Neri G., Casaccia P., **Iavarone A**., Ladogana A., Macchi G. A retrospective study of Creutzfeldt-Jacob disease in Italy (1972-1986). *Eur. J. Epidem.* 4: 482-487, 1988.

2**. Iavarone A**., Eboli M.L., Osti M., Redler A., Pocchiari M., Russo M.A. 3-D Changes in neuroblastoma/glioma hybrid (NG108-15). Cell differentiation as studied by SEM and TEM. *Prog. Clin. Biol. Res.,* 295: 377-382, 1989.

3. **Iavarone A**., Servidei T., Riccardi R., Lasorella A., Mastrangelo R. Specific uptake of 125-I-metaiodobenzylguanidine in human neuroblastoma cell lines is associated with the neuroblastic cell type*. Prog. Clin. Biol. Res.,* 366:447-454, 1991.

4. **Iavarone A**., Lasorella A., Servidei T., Riccardi R., Troncone L., Mastrangelo R. Biology of metaiodobenzylguanidine interactions with human neuroblastoma cells. *J. Nuc. Biol. Med.,* 35(4):186-190, 1991.

5. Mastrangelo R; Lasorella A; Troncone L; Rufini V; **Iavarone A**; Riccardi R. [131I]metaiodobenzylguanidine in neuroblastoma patients at diagnosis. *J. Nuc. Biol. Med.,* 35(4):252-254, 1991.

6. Mastrangelo R, Lasorella A, **Iavarone A**, Troncone L. Urinary vanilmandelic acid and homovanillic acid: markers of two distinct cell populations in neuroblastoma? *Ped. Hem. Onc.,* 8(4):379-381, 1991.

7. **Iavarone A**., Matthay K.K., Steinkirchner T.M. , Israel M.A. Germ-line and somatic p53 mutations in multifocal osteogenic sarcoma. *Proc. Natl. Acad. Sci. USA* 89: 4207-4209, 1992.

8. **Iavarone A**., Lasorella A., Servidei T., Riccardi R., Mastrangelo R. Uptake and storage of m-iodobenzylguanidine are frequent neuronal functions of human neuroblastoma cell lines. *Cancer Res.,* 53(2):304-309, 1993.

9. Mastrangelo R; Lasorella A; **Iavarone A**; Rufini V; Troncone L; Danza F; Riccardi R. Critical observations on neuroblastoma treatment with 131-I-metaiodobenzylguanidine at diagnosis. *Med. Ped. Onc.*, 21(6):411-415, 1993.

10. *** Iavarone A**., Garg P., Lasorella A., Hsu J., Israel M.A. The helix-loop-helix protein Id-2 enhances cell proliferation and binds to the retinoblastoma protein. *Genes & Dev.,* 8(11):1270-1284, 1994.

11. Riccardi R., Riccardi A., Lasorella A., Di Rocco C., Carelli G., Tornesello A., Servidei T., **Iavarone A**., Mastrangelo R. Clinical Pharmacokinetics of Carboplatin in Children. *Cancer Chem. Pharmacol.,* 33(6):477-483, 1994.

12. Mastrangelo R., Lasorella A., Riccardi R., Colosimo C., **Iavarone A**., Tornesello A., Ausili-Cefaro G., Di Rocco C. Carboplatin in childhood medulloblastoma/PNET: feasibility of an in vivo sensitivity test in an "up front" study. *Med. Ped. Onc.,* 24(3):188-196, 1995.

13. Chen P., **Iavarone A**., Fick J., Edwards M.S., Prados M.D., Israel M.A. Constitutional p53 mutations associated with brain tumors in young adults. *Cancer Genet. & Cytogenet.,* 82(2):106-115, 1995.

14. Jensen S., Paderanga D.C., Chen P.C., Olson K., Edwards M., **Iavarone A**., Israel M.A., Shannon K. Molecular analysis at the NF1 locus in astrocytic brain tumors. *Cancer,* 76(4):674-677, 1995.

15. Reynisdottir I., Polyak K., **Iavarone A**., Massague J. (*The first three authors contributed equally to this study*) Kip/Cip and Ink4 Cdk inhibitors cooperate to induce cell cycle arrest in response to TGF-beta. *Genes & Dev.,* 9(15):1831-1845, 1995.

16. Servidei T., **Iavarone A**., Lasorella A., Mastrangelo S., Riccardi R. Release mechanisms of [125I]meta-iodobenzylguanidine in neuroblastoma cells: evidence of a carrier-mediated efflux. *Eur. J. Cancer,* 31A(4):591-595, 1995.

17. Lasorella A., **Iavarone A**., Israel MA. Differentiation of neuroblastoma enhances Bcl-2 expression and induces alterations of apoptosis and drug resistance. *Cancer Res.,* 55(20):4711-4716, 1995.

18. Lasorella A., **Iavarone A**., Israel MA. Id2 specifically alters regulation of the cell cycle by tumor suppressor proteins. *Mol. Cell. Biol.* 16 (6):2570-2578, 1996.

19. Orlow I., **Iavarone A**., Cridermiller Sj., Bonilla F., Latres E., Lee MH., Gerald WL., Massague' J., Weissman BE., Cordon-Cardo' C. Cyclin-dependent kinase inhibitor p57(Kip2) in soft tissue sarcomas and Wilms tumors. *Cancer Res.,* 56 (6):1219-1221, 1996.

20. Liu M. , **Iavarone A**., Freedman L.P. Transcriptional activation of the human p21WAF1/CIP1 gene by retinoic acid receptor. Correlation with retinoid induction of U937 cell differentiation. *J. Biol. Chem.* 271 (49): 31723-31728, 1996.

21. Hiyama H., **Iavarone A**., LaBaer J., Reeves S.A. Regulated ectopic expression of cyclin D1 induces transcriptional activation of the cdk inhibitor p21 gene without altering cell cycle progression. *Oncogene,* 14:2533-2542, 1997.

22. **Iavarone A**., Massague' J. Repression of the Cdk activator Cdc25A and cell cycle arrest by cytokine TGF-β in cells lacking the Cdk inhibitor pl5. *Nature* (*Letter*), 387: 417-422, 1997.

23. Mastrangelo R., Tornesello A., Lasorella A., **Iavarone A**., Mastrangelo S., Riccardi R., Diociaiuti L., Rufini V., Pession A., Troncone L. Optimal use of the 131-I-metaiodobenzylguanidine and cisplatin combination in advanced neuroblastoma. *J. Neuroncol.* 31:153-158, 1997.

24. Hiyama H., **Iavarone A**., Reeves S.A. Regulation of the cdk inhibitor p21 gene during cell cycle progression is under the control of the transcription factor E2F. *Oncogene*, 16:1513-1523, 1998.

25. **Iavarone A**. & Massague' J. E2F and histone deacetylase mediate TGFβ repression of *cdc25A* during keratinocyte cell cycle arrest, *Mol. Cell. Biol.,* 19:916-922, 1999.

26. Rots N.Y., **Iavarone A.**, Bromleigh V., Freedman L.P. Induced differentiation of U937 cells by 1,25-dihydroxyvitamin D3 involves cell cycle arrest in G1 that is preceded by a transient proliferative burst and an increase in cyclin expression. *Blood* 93:2721-2729, 1999.

27. Bouzahzah B., Fu M., **Iavarone A.**, Factor V.M., Thorgeirsson S.S., Pestell R.G. Transforming growth factorβ-1 recruits histone deacetylase 1 to a p130 repressor complex in transgenic mice in vivo. *Cancer Res*. 60:4531-4537, 2000.

28. ***** Lasorella A., Noseda M., Beyna M., **Iavarone A**. Id2 is a target of the retinoblastoma protein and mediates signalling by Myc oncoproteins. *Nature (Article)*, 407:592-598, 2000.

29. Park D.S., Razani B., Lasorella A., Schreiber-Agus N., Pestell R.G., **Iavarone A**., Lisanti M.P. Evidence that Myc isoforms transcriptionally repress caveolin-1 gene expression via INR-dependent mechanism. *Biochemistry* 40:3354-3362, 2001.

30. ***** Wainwright LJ, Lasorella A, **Iavarone A**. Distinct mechanisms of cell cycle arrest control the decision between differentiation and senescence in human neuroblastoma cells. *Proc Natl Acad Sci U S A* 98:9396-9400, 2001.

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13) Patents

- Method for diagnosing and treating pediatric neoplasm (filed December 2000, granted November 2010).
- Methods for Treating Tumors Including ENH Dislocation of Id Proteins (filed May 2005).
- Degradation Resistant Id Proteins and Uses Thereof (filed May 2006).
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- Identification of a 5-gene signature predicting clinical outcome of patients with brain tumors (filed December 2012).
- EGFR fusion proteins in glioblastoma (filed March 2013, licensed to Qiagen).
- An ID-2-dependent mechanism for VHL inactivation in cancer (filed December 2015).
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14) Selected International Media Coverage/Editorials

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