Curriculum vitae

TOMMASO CAVALLERI

Personal Information

Date and place of birth

Address

Mobile

E-mail

IVA

Nationality

Job Experience

01/2021-today **Project Manager at Fondazione IRCCS Istituto Nazionale dei Tumori di Milano - Peritoneal Surface Malignancies Unit**

PMPnet - Building a European multicentric cohort of patients affected by Pseudomyxoma peritonei and to accelerate new therapeutic perspectives.

Tasks: Project managment, ethical committee, material, and data transfer agreement writing and submission process, budget managing, clinical review series, data managing in accordance with the requirements set out in Good Clinical Practices and the protocol, scientific report to funding charities. Support to clinicians in planning, management and improvement of the scientific project, as well as coordination between research centres participating in the project and supervision of project milestone achievement. Design, creation, maintenance of eCRF and of the virtual biobank.

11/2018 – 12/2020 **Project Manager for Alleanza Contro il Cancro - Working group Colon and Genomics**

Next-generation sequencing of primary and secondary Colorectal Cancer lesions to investigate new molecular signature for the diagnosis and identification of disease subtypes.

07/2015 – 12/2020 **Postdoctoral Research Fellow at IRCCS Humanitas Clinical and Research Center,** Department of Molecular Gastroenterology, Rozzano, MI, Italy

Assessment of tumor-infiltrating lymphocytes and tumor-associated macrophages as prognostic and predictive biomarkers of early and advanced Colorectal Cancers.

Tasks: project manager, ethical committee and material transfer and data agreement writing and submission process, budget managing, clinical series selection and review, coordination of biological samples between research institutions, data managing in accordance with the requirements set out in Good Clinical Practices and the protocol, scientific report and peer-reviewed article writing, grant writing and submission process, image and statistical analysis (ImageJ, Image Pro Plus 7, STATA, and R), *in vitro* cellular and molecular biology experiments, processing of biological samples and immunohistochemistry.

02/2015 – 07/2015 **Collaboration at University of Milan, Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico**, Department of Clinical Sciences and Community Health, Molecular Epigenetics Lab, Milan, Italy

MiRNA expression in macrovesicles from plasma as possible molecular mechanisms underlying the effects of particulate matter exposure in relation to health outcomes.
Tasks: clinical series selection, data managing, peer-reviewed article writing, biological samples collection and processing, protocol optimization.

11/2011 – 02/2015 **PhD at University of Milan, Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico**, Department of Clinical Sciences and Community Health, Milan, Italy, Molecular Epigenetics Lab, Milan, Italy

High-throughput analysis of miRNA expression profiles in asbestos-exposed workers affected by Malignant Pleural Mesothelioma.

04/2010 - 11/2011 **Collaboration at University of Milan, Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico**, Department of Clinical Sciences and Community Health, Molecular Epigenetics Lab, Milan, Italy

Methylation study of repetitive elements and specific promoter in human population affected by Schizophrenia.

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11/2008 - 10/2009 **Research Activity at University of Oslo**, Department of Molecular Biosciences, Oslo, Norway

Determine whether the overexpression of a transcriptional factor NFAT is able to activate the slow gene expression in skeletal muscles, switching the fiber types from fast to slow.

Education

03/2015 – 03/2017 **Second Level Master in Medical and Genomic Statistic at University of Pavia**, Italy

Area: epidemiology, medical statistic, experimental study design and analysis.
Topic of the Thesis: Density of adaptive immune cells as prognostic and predictive biomarkers in Colorectal Cancer patients

11/2011 – 02/2015 **PhD in Occupational Health and Industrial Hygiene at University of Milan**, Italy

Area: biomedical, molecular biology and experimental sciences.
Topic of the Project: MicroRNAs expression in exhaled breath condensate and blood as diagnostic biomarkers of Malignant Pleural Mesothelioma in asbestos-exposed subjects.

10/2007 - 03/2011 **Master's Degree in Molecular Biology of the Cell at University of Milan**, Milan, Italy

Area: Physiology, molecular biology and experimental sciences
Topic of the Project: The role of the transcription factor NFATc1 on slow genes expression in fast skeletal muscles.

10/2002 - 03/2007 **Bachelor's Degree in Biological Science at Insubria University**, Varese, Italy

Area: Electrophysiology, biochemistry, and molecular biology
Topic of the Project: Improvement of heterologous expression in *Xenopous Leavis* oocytes for the glycine neural transporter rGLYT2a.

Technical Expertise

Data Managing & Statistic REDCap, Stata, R, GraphPad Prism 5

Wet Laboratory Nucleic acids extraction and purification, electrophoresis, PCR, RT-PCR, qPCR, Real-Time PCR Open Array Studio Systems, DNA sodium bisulfite treatment, Pyrosequencing, electroporation *in vivo*, cell cultures, microtome, cryotome, immunohistochemistry, bright and fluorescence microscopy.

Technical Software Pyrosequencig Assay Design, Genomatix, Pyro *Q-CpG* Software, PyroMark MD, SDS Software, RQ Manager, Microlab Star Line, Gen5, Expression Suite, Ingenuity Pathway Analysis, Image Pro Plus 7, ImageJ

Other Software Adobe Photoshop, MS Word, MS Access, MS Excel, Outlook, PowerPoint

Linguistic Knowledge

Italian Mother tongue

English Proficient in writing, speaking and listening

Publications

Baratti D, Kusamura S, Guaglio M, Milione M, Pietrantonio F, Cavalleri T, Morano F, Deraco M. **Relapse of Pseudomyxoma Peritonei After Cytoreductive Surgery and Hyperthermic Intraperitoneal Chemotherapy: Pattern of Failure, Clinical Management and Outcomes.** Ann Surg Oncol. 2023 Jan;30(1):404-414. doi: 10.1245/s10434-022-12367-6. Epub 2022 Sep 12. PMID: 36094689.

Cavalleri T, Greco L, Rubbino F, Hamada T, Quaranta M, Grizzi F, Sauta E, Craviotto V, Bossi P, Vetrano S, Rimassa L, Torri V, Bellazzi R, Mantovani A, Ogino S, Malesci A, Laghi L. **Tumor-associated macrophages and risk of recurrence in stage III colorectal cancer.** J Pathol Clin Res. 2022 Jul;8(4):307-312. doi:10.1002/cjp2.267. Epub 2022 Mar 23. PMID: 35318822; PMCID: PMC9161313.

Petti L, Rizzo G, Rubbino F, Elangovan S, Colombo P, Restelli S, Piontini A, Arena V, Carvello M, Romano B, Cavalleri T, Anselmo A, Ungaro F, D'Alessio S, Spinelli A, Stifter S, Grizzi F, Sgambato A, Danese S, Laghi L, Malesci A, Vetrano S. **Unveiling role of sphingosine-1-phosphate receptor 2 as a brake of epithelial stem cell proliferation and a tumor suppressor in colorectal cancer.** J Exp Clin Cancer Res. 2020 Nov 23;39(1):253. doi: 10.1186/s13046-020-01740-6. PMID: 33225975; PMCID: PMC7682101.

Cavalleri T, Bianchi P, Basso G, Celesti G, Grizzi F, Bossi P, Greco L, Pitrone C, Valtorta E, Mauri G, Truini M, Dall'Olio FG, Brandi G, Sartore-Bianchi A, Ricciardiello L, Torri V, Rimassa L, Siena S, Mantovani A, Malesci A, Laghi L; Alleanza contro il Cancro (ACC) Colorectal Cancer Working Group. ***Combined Low Densities of FoxP3+ and CD3+ Tumor-Infiltrating Lymphocytes Identify Stage II Colorectal Cancer at High Risk of Progression.*** Cancer Immunol Res. 2019;7(5):751-758.

Grizzi F, Basso G, Borroni EM, Cavalleri T, Bianchi P, Stifter S, Chiriva-Internati M, Malesci A, Laghi L. ***Evolving notions on immune response in colorectal cancer and their implications for biomarker development.*** Inflamm Res. 2018;67(5):375-389.

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Malesci A, Bianchi P, Celesti G, Basso G, Marchesi F, Grizzi F, Di Caro G, Cavalleri T, Rimassa L, Palmqvist R, Lugli A, Koelzer VH, Roncalli M, Mantovani A, Ogino S, Laghi L. ***Tumor-associated macrophages and response to 5-fluorouracil adjuvant therapy in stage III colorectal cancer.*** Oncoimmunology. 2017;12;6(12):e1342918.

Cavalleri T, Angelici L, Favero C, Dioni L, Mensi C, Bareggi C, Palleschi A, Rimessi A, Consonni D, Bordini L, Todaro A, Bollati V, Pesatori AC. ***Plasmatic extracellular vesicle microRNAs in malignant pleural mesothelioma and asbestos-exposed subjects suggest a 2-miRNA signature as potential biomarker of disease.*** PLoS One. 2017;12(5):e0176680.

Dioni L, Sucato S, Motta V, Iodice S, Angelici L, Favero C, Cavalleri T, Vigna L, Albetti B, Fustinoni S, Bertazzi P, Pesatori A, Bollati V. ***Urinary chromium is associated with changes in leukocyte miRNA expression in obese subjects.*** Eur J Clin Nutr. 2017;71(1):142-148.

Ursini G, Cavalleri T, Fazio L, Angrisano T, Iacovelli L, Porcelli A, Maddalena G, Punzi G, Mancini M, Gelao B, RomanoR), Masellis R, Calabrese F, Rampino A, Taurisano P, Di GiorgioA, Keller S, Tarantini L, Sinibaldi L, Quarto T,Popolizio T, Caforio G, Blasi G, Riva MA, De Blasi A, Chiariotti L, Bollati V, Bertolino A. ***BDNF rs6265 methylation and genotype interact on risk for schizophrenia.*** Epigenetics. 2016;11(1):11-23.

Angelici L, Piola M, Cavalleri T, Randi G, Cortini F, Bergamaschi R, Baccarelli AA, Bertazzi PA, Pesatori AC, Bollati V. ***Effects of particulate matter exposure on multiple sclerosis hospital admission in Lombardy region, Italy.*** Environ Res. 2016;145:68-73.

Bollati V, Iodice S, Favero C, Angelici L, Albetti B, Cacace R, Cantone L, Carugno M, Cavalleri T, De Giorgio B, Dioni L, Fustinoni S, Hoxha M, Marinelli B, Motta V, Patrini L, Pergoli L, Riboldi L, Rizzo G, Rota F, Sucato S, Tarantini L, Tirelli AS, Vigna L, Bertazzi P, Pesatori AC. ***Susceptibility to particle health effects, miRNA and exosomes: rationale and study protocol of the SPHERE study.*** BMC Public Health. 2014 Nov 4;14(1):1137.

Pergoli L, Favero C, Pfeiffer RM, Tarantini L, Calista D, Cavalleri T, Angelici L, Consonni D, Bertazzi PA, Pesatori AC, Landi MT, Bollati V. ***Blood DNA methylation, nevi number, and the risk of melanoma.*** Melanoma Res. 2014 Oct;24(5):480-487.

Oral Presentations

Cavalleri T. ***Forecasting responsiveness to FOLFOX adjuvant therapy by densities of peritumoral macrophages in patients with stage III colorectal cancer.*** The 4th Annual Meeting of Alleanza Control il Cancro. Rome, Italy. November 20-22, 2019

Cavalleri T. ***Combined low densities of FoxP3+ and CD3+ tumor-infiltrating lymphocytes for the intra-stage II identification of colorectal cancers with the highest risk of progression.*** The 8th International Conference on Tumor Microenvironment: Progression, Therapy & Prevention. International Cancer Microenvironment Society. Lisbon, Portugal, June 10-14, 2018

Cavalleri T. ***Coupled low FoxP3+/CD3+ lymphocytes mark high risk of progression within stage II colorectal cancer.*** Global Academic Programs (GAP) Conference 2018 "Global efforts fighting cancer". Stockholm, Sweden, May 15-17, 2018

Milano, 10th March 2024