PERSONAL INFORMATION

Andrea Vingiani

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Sex Male | Date of birth 03/06/1986 | Nationality Italian

WORK EXPERIENCE

May 2019 – Present

Pathology assistant and University researcher
Head of the Clinical Research Laboratory

Fondazione IRCCS – Istituto Nazionale dei Tumori – Milano (INT), Division of Pathology

University of Milan, School of Medicine

- Departmental activities: macroscopic examinations, histological examinations (breast and head & neck cancer), intraoperative diagnosis, molecular pathology
- Research activities
- Teaching activities for students of the School of Medicine and degree courses in Biology and Audiology

August 2016 – April 2019

Pathology assistant

Istituto Europeo di Oncologia, Milano

- Departmental activities: macroscopic examinations, histological examinations (breast, urologic, thoracic, colorectal, gynaecologic, skin and soft tissues pathology), intraoperative diagnosis, molecular pathology
- Research activities
- Tutorial activities for students of the School of Medicine and Surgery

July 2012 – July 2016

Pathology resident

Istituto Europeo di Oncologia, Milano; Fondazione IRCCS – Istituto Nazionale dei Tumori – Milano; Ospedale Luigi Sacco, Milano; Ospedale Maggiore Policlinico, Milano; Ospedale San Paolo, Milano.

- Departmental activities (macroscopic examinations, histological examinations, intraoperative diagnosis, molecular pathology, autoptic procedures)
- Research activities
- Teaching activities for students of the School of Medicine and Surgery

EDUCATION AND TRAINING

July 2012- July 2016

Degree in Pathology, 70/70 cum laude

School of Anatomic Pathology, University of Milan

Thesis discussed: “Prognostic and predictive value of tumor infiltrating lymphocytes in triple negative breast cancer”

October 2011 - February 2012

Habilitation to Physician Practice

2005 – 2011

Degree in Medicine, 110/110 cum laude

University of Milan, School of Medicine

Thesis discussed: “Hystopathologic and molecular assessment of breast cancer sentinel lymph node”

I

2000-2005 Liceo scientifico Giordano Bruno, Melzo (MI), High school

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)
ENGLISH

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
C2	C2	C1	C1	C2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
Common European Framework of Reference for Languages

Communication skills
- Good communication skills gained through my experience in team working

Organisational / managerial skills
- leadership (currently responsible for a team of 7 people)

Medical and research skills

I am a fully trained pathologist, with peculiar expertise in solid malignancies. I had the chance to work with leading pathologists, including Prof. Viale, Prof. Pruneri (breast pathology), Dott. Carinelli, Dr. Carcangiu (gynaecopathology), Prof. Pelosi and Dr. Barberis (lung pathology), thus reaching full independence and high proficiency in routine diagnostic activities in several pathology fields.
My research activity is focused on the identification of molecular lesions and predictive and prognostic factors, mainly in breast, head and neck and ovarian neoplasms. In particular, I am actively involved in research on the role of inflammatory tumour infiltrate (TILs) in solid neoplasms, and I collaborate with the "International Immuno-Oncology Biomarker working group", led by Roberto Salgado, Sherene Loi and Carsten Denkert, and devoted to the study of the TILs, at first mainly in the mammary field, subsequently in several solid human neoplasms, and to the creation of standards for the evaluation of inflammatory infiltrate.
I am an active member of the Molecular Advisory Board and Steering Committee of the international clinical trial AURORA (Aiming to Understand the Molecular Aberrations in Metastatic Breast Cancer), of the Breast International Group (BIG), led by Prof. Martine Piccart and Dr. Philippe Aftimos. In this context, my role is to evaluate the pathogenicity and possible actionability of somatic and germinal mutations in patients with metastatic breast cancer, subjected to mutational analysis by massive parallel sequencing (panel of 411 genes, ONCODNA S.A.).
I am the head of the Clinical Research Laboratory (CRAB) in INT, a group of biologists and technician devoted to translational research and involved in several institutional research activities, providing assistance to several research group performing histopathological diagnosis, immunohistochemical analysis (on Dako and Ventana platforms) and transcriptomic analysis (Nanostring nCounter), and running independent research activities. In particular, I am involved in a number of research projects, including projects of epigenetic and transcriptomic characterization of breast carcinoma and clinical studies evaluating the role of metabolic interventions in breast cancer treatment. In this contest, my group is performing spatially-resolved transcriptomic analysis by GeoMx Digital Spatial Profiler (Nanostring) and single cell analysis (10x Genomics Chromium), closely cooperating with our institutional Bioinformatic facility.
I am the coordinator of INT Molecular Tumor Board, providing gene variants annotations and targeted therapy recommendations for 400 advanced/metastatic cancer patients per year (NGS testing on Thermofisher Ion S5 and Illumina Nextseq500 platforms).
I also took part in the centralized pathology review of patients' samples in the trial "APHINITY" of the Breast International Group, sponsored by Hoffmann-La Roche/Genentech, under the supervision of the Prof. Viale (histopathology, biological characteristics in immunohistochemistry and FISH). During these years I have therefore acquired clinical-diagnostic skills and confidence with different methods, including immunohistochemistry, immunofluorescence, confocal microscopy, evaluation of tumours in murine models, DNA isolation, next generation sequencing and bioinformatic analysis of results.
My research activity is documented in 100 works on indexed journals, with over 4200 citations and an

H-score of 26 (Scopus). I am co-author of a chapter in the book "Breast Cancer: Innovations in Research and Management" (Veronesi U., Goldhirsch A., Veronesi P., Gentilini O., Leonardi M.C.; Springer International Publishing). I am section editor for “Tumori Journal”, and revisor for a number of international scientific journals (The Breast, Breast Cancer Research and Treatment).

Digital and Bioinformatic skills

- Excellent knowledge of the computer in Windows and MacOs environment, and of the main programs (Word, Excel, Powerpoint, Access).
- Basic knowledge of programming languages and statistics programs (R).
- Excellent knowledge of bioinformatics tools, from catalogues of somatic and germinal mutations (COSMIC, cBioPortal, ClinVar, GnomAD, ExAC, dbSNPdatabase, IARC TP53 database, BRCA Exchange), multiple sequence alignment tools (BLAST, ClustalW2, ClustalOmega, Panther, Muscle), in silico functional prediction tools (FATHMM, Sift, PolyPhen, Provean, CADD).

Driving licence B

Presentations
Conferences
Seminars
Memberships

- Speaker at the PMMP (Gruppo Italiano di Patologia Molecolare e Medicina di Precisione) national congress, organized by Prof. Umberto Malapelle and Prof. Fabio Pagni, held in Florence on 11-12/04/2025, with the presentation “Come costruire una sezione di patologia molecolare in anatomia patologica. Regolamenti e norme nell’era MTB”
- Speaker at the congress “EMPOWERing talks: State of the Art and Translational Research in Breast and Ovarian cancer”, organized by Dr. Benedetta Pellegrino, held in Parma on 04/04/2025, with the presentation “Translational and Clinical applications of Single Cells Transcriptomic”
- Speaker at the seminar “Thinking Juliet. La paziente al centro dei tumori ginecologici”, organized by Prof. Stefano Uccella and Prof. Massimo Piergiuseppe Franchi, held in Verona on 05/04/2024, with the presentation “ biomarcatori predittivi di risposta alla terapia nel tumore dell’endometrio”
- Speaker at the congress “Precision Medicine and Genomic Profiling Networking Forum. Putting personalized medicine into the practice!” held in Skopje, Macedonia, on 23/11/2023, with the presentation “Precision Oncology in the Pathology laboratory”.
- Speaker at the congress “Oncologia ginecologica su misura. La fine della “taglia unica””, held in Milan on 30/11/2023, with the presentation “HRD e BRCA: come implementare l’uso di questi biomarcatori nella pratica clinica”.
- Speaker at the congress “Spotlight on Gynaecological Cancer”, held in Brescia on 09/06/2023, organized by Prof.ssa Nicoletta Colombo, Prof. Giorgio Valabrega e Dr. Francesco Raspagliesi,with the presentation “CGP, HRD & BRCA: come si integra il dato molecolare nella decisione clinica”.
- Speaker at the conference "GI NEXT 2023", held on 27/01/2023, organized by Dr. Filippo Pietrantonio and Dr. Margherita Ratti, with the presentation entitled: "From traditional histology to NGS: the new way of calling GI tumors".
- Speaker at the conference "2nd Milan Cancer Meeting, Innovations in Prevention, Research and Care", held on 23-24/09/2022 in Milan, organized by Prof. Francesco Petrella and Giovanni Corso, with the presentation entitled "Triple negative breast cancer heterogeneity: from pathology to single cell sequencing".
- Speaker at the conference "Digital therapy and home oncology: the future of integrated cancer care between hospital and territory", organized by Prof. Daniele Generali, held on 18/09/2021 electronically, with the presentation entitled: "Health professions in the era of Digital Oncological Therapy: from teleclinic to tele-pathology, through tele-laboratory"
- Speaker at the conference "Current issues of diagnosis and treatment of organs' neoplasms of the thoracic cavity", held on 16-17/09/2021 in Vinnytsia, Ukraine, with the presentation entitled: "The molecular charaterization of NSCLC: the pathologist point of view".

- Speaker at the conference "8th ESO-ESMO Arab and Southern European Countries Masterclass in Clinical Oncology", held in Limassol, Cyprus, on 23-27/01/2020, with the presentation entitled "What the clinician needs to know from the breast pathologist".
- Speaker at the conference "Current issues of diagnostics and treatment of oncological diseases of the reproductive sphere", held on 19-20/09/2019 in Vinnytsia, Ukraine, with presentations entitled: "The molecular charaterization of NSCLC: the pathologist point of view" e "Intratumor heterogeneity".
- Speaker at the congress: "Update on major salivary gland tumors", held in Alghero on 3-5/10/2019, with the presentation entitled: "Genomic characterization of salivary gland cancer: the role of pathology in personalized treatment".
- Speaker at the congress "ESMO Breast Cancer", held in Berlin on 2-4 May 2019, with the presentation entitled: "Markers of response and resistance to PD-L1 inhibition in solid tumour types - lessons for breast cancer".
- Speaker at the conference "Course of immunotherapy in oncology 2018", organized by the Italian Association of Medical Oncology and the Italian Society of Pathological Anatomy (AIOM-SIAPEC), held in Turin on 5-6/09/2018, with the presentation entitled: "TILs".
- Speaker at the conference "Course of immunotherapy in oncology", organized by the Italian Association of Medical Oncology and the Italian Society of Pathological Anatomy (AIOM-SIAPEC), held in Bari on 8-9/11/2018, with the presentation entitled: "TILs".
- Speaker at the congress "Conquer Breast, advanced course for the management of patients with breast cancer", held in Milan on 14-16 September 2017, with the presentation entitled "Role of the immune system in breast cancer: TILs and immune-checkpoints".
- Speaker at the 2016 SIAPEC congress, held in Genoa (23-26/11/2016), with the presentation entitled "The tumor inflammatory infiltrate in breast cancer"
- Speaker in English at the 2014 SIAPEC congress, in Florence, with the presentation entitled “RANK/RANKL expression by immunohistochemistry in young breast cancer patients at diagnosis and during pregnancy: association with clinicopathologic features, gene expression profiles, tumor infiltrating lymphocytes (TILs) and patient outcome”.

01/06/2025

Pubblications

1. Rosano D, Sofyali E, Dhiman H, , et al. Long-term Multimodal Recording Reveals Epigenetic Adaptation Routes in Dormant Breast Cancer Cells. Cancer Discov. 2024 Mar 21:OF1-OF24. doi: 10.1158/2159-8290.CD-23-1161. Epub ahead of print. PMID: 38527495.
2. Di Cosimo S, Pizzamiglio S, Ciniselli CM, , et al. A gene expression-based classifier for HER2-low breast cancer. Sci Rep. 2024 Feb 1;14(1):2628. doi: 10.1038/s41598-024-52148-7. PMID: 38297001; PMCID: PMC10830477.
3. Serafini MS, Cavalieri S, Licitra L, , et al. Association of a gene-expression subtype to outcome and treatment response in patients with recurrent/metastatic head and neck squamous cell carcinoma treated with nivolumab. J Immunother Cancer. 2024 Jan 30;12(1):e007823. doi: 10.1136/jitc-2023-007823. PMID: 38290766; PMCID: PMC10828850.
4. Licata L, De Sanctis R, Vingiani A, , et al. Real- world use of multigene signatures in early breast cancer: differences to clinical trials. Breast Cancer Res Treat. 2024 Jan 24. doi: 10.1007/s10549-023-07227-0. Epub ahead of print. PMID: 38265569.
5. Prelaj A, Ganzinelli M, Provenzano L, , et al. APOLLO 11 Project, Consortium in Advanced Lung Cancer Patients Treated With Innovative Therapies: Integration of Real-World Data and Translational Research. Clin Lung Cancer. 2024 Mar;25(2):190-195. doi: 10.1016/j.cllc.2023.12.012. Epub 2023 Dec 22. PMID: 38262770.
6. Zattarin E, Mariani L, Menichetti A, , et al. Peripheral blood lymphocytes predict clinical outcomes in hormone receptor-positive HER2-negative advanced breast cancer patients treated with CDK4/6 inhibitors. Ther Adv Med Oncol. 2023 Dec 20;15:17588359231204857. doi: 10.1177/17588359231204857. PMID: 38130467; PMCID: PMC10734364.
7. Bergamini C, Cavalieri S, Resteghini C, et al. Multidisciplinary management of pregnancy-associated and early post-partum head and neck cancer patients. Front Oncol. 2023 Nov 22;13:1298439. doi: 10.3389/fonc.2023.1298439. PMID: 38074678; PMCID: PMC10703464.
8. Di Cosimo S, De Marco C, Silvestri M, et al. Can we define breast cancer HER2 status by liquid biopsy? Int Rev Cell Mol Biol. 2023;381:23-56. doi: 10.1016/bs.ircmb.2023.07.003. Epub 2023 Sep 4. PMID: 37739483.
9. Mosconi P, Colombo C, Paletta P, , et al. Public and patient involvement: a survey on knowledge, experience and opinions among researchers within a precision oncology European project. BMC Cancer. 2023 Aug 30;23(1):814. doi: 10.1186/s12885-023-11262-x. PMID: 37648965; PMCID: PMC10470190.
10. Zattarin E, Taglialatela I, Lobefaro R, et al. Breast cancers arising in subjects with germline BRCA1 or BRCA2 mutations: Different biological and clinical entities with potentially diverse therapeutic opportunities. Crit Rev Oncol Hematol. 2023 Oct;190:104109. doi: 10.1016/j.critrevonc.2023.104109. Epub 2023 Aug 27. PMID: 37643668.
11. Ligorio F, Lobefaro R, Fucà G, et al. Adding fasting-mimicking diet to first-line carboplatin-based chemotherapy is associated with better overall survival in advanced triple-negative breast cancer patients: A subanalysis of the NCT03340935 trial. Int J Cancer. 2023 Aug 24. doi: 10.1002/ijc.34701. Epub ahead of print. PMID: 37615485.
12. Vingiani A, Lorenzini D, Conca E, et al. Pan-TRK immunohistochemistry as screening tool for NTRK fusions: A diagnostic workflow for the identification of positive patients in clinical practice. Cancer Biomark. 2023 Jul 18. doi: 10.3233/CBM-220357. Epub ahead of print. PMID: 37545217.
13. Vingiani A, Agnelli L, Duca M, et al. Molecular Tumor Board as a Clinical Tool for Converting Molecular Data Into Real-World Patient Care. JCO Precis Oncol. 2023 Jul;7:e2300067. doi: 10.1200/PO.23.00067. PMID: 37487147.
14. Azzollini J, Agnelli L, Conca E, et al. Prevalence of BRCA homopolymeric indels in an ION Torrent-based tumour-to-germline testing workflow in high-grade ovarian carcinoma. Sci Rep. 2023 May 13;13(1):7781. doi: 10.1038/s41598-023-33857-x. PMID: 37179432; PMCID: PMC10182972.
15. Zattarin E, Presti D, Mariani L, et al.Prognostic significance of HER2-low status in HR-positive/HER2-negative advanced breast cancer treated with CDK4/6 inhibitors. NPJ Breast Cancer. 2023 Apr 17;9(1):27. doi: 10.1038/s41523-023-00534-1. PMID: 37069173; PMCID: PMC10110597.
16. Costa G, Sposito C, Soldani C, et al. Macrophage morphology and distribution are strong predictors of prognosis in resected colorectal liver metastases: results from an external retrospective observational study. Int J Surg. 2023 May 1;109(5):1311-1317. doi: 10.1097/JS9.0000000000000374. PMID: 37037585; PMCID: PMC10389408.
17. Licata L, Cosentini D, De Sanctis R, et al. Multigene signatures for early breast cancer in clinical practice: A report of the Lombardy genomic assays for breast cancer working group. Front Oncol. 2023 Mar 6;13:1081885. doi: 10.3389/fonc.2023.1081885. PMID: 36950554; PMCID: PMC10025563.
18. Di Cosimo S, Ciniselli CM, Pizzamiglio S, et al. End-of-neoadjuvant treatment circulating microRNAs and HER2-positive breast cancer patient prognosis: An exploratory analysis from NeoALTTO. Front Oncol. 2023 Jan 31;12:1028825. doi: 10.3389/fonc.2022.1028825. PMID: 36798690; PMCID: PMC9927225.
19. Lobefaro R, Mariani L, Peverelli G, et al. Efficacy and Safety of First-line Carboplatin-paclitaxel and Carboplatin-gemcitabine in Patients with Advanced Triple-negative Breast Cancer: A Monocentric, Retrospective Comparison. Clin Breast Cancer. 2023 Apr;23(3):e151-e162. doi: 10.1016/j.clbc.2022.12.008. Epub 022 Dec 17. PMID: 36599769.

20. Castagnoli L, Corso S, Franceschini A, et al. Fatty acid synthase as a new therapeutic target for HER2-positive gastric cancer. Cell Oncol (Dordr). 2023 Jun;46(3):661-676. doi: 10.1007/s13402-023-00769-x. Epub 2023 Feb 8. PMID: 36753044; PMCID: PMC10205874.
21. Ferrando L, Vingiani A, Garuti A, et al. ESR1 gene amplification and MAP3K mutations are selected during adjuvant endocrine therapies in relapsing Hormone Receptor-positive, HER2-negative breast cancer (HR+ HER2- BC). PLoS Genet. 2023 Jan 3;19(1):e1010563. doi: 10.1371/journal.pgen.1010563. PMID: 36595552; PMCID: PMC9839248.
22. Capone I, Bozzi F, Dagrada GP, et al. Targeted RNA-sequencing analysis for fusion transcripts detection in tumor diagnostics: assessment of bioinformatic tools reliability in FFPE samples. Explor Target Antitumor Ther. 2022;3(5):582-597. doi: 10.37349/etat.2022.00102. Epub 2022 Oct 27. PMID: 36338518; PMCID: PMC9630092.
23. Ciliberto G, Canfora M, Terrenato I, et al. R. Bridging therapeutic opportunities: a survey by the Italian molecular tumor board workgroup of Alliance Against Cancer. J Exp Clin Cancer Res. 2022 Oct 17;41(1):305. doi: 10.1186/s13046-022-02512-0. PMID: 36245005; PMCID: PMC9575294.
24. Di Cosimo S, La Rocca E, Ljevar S, et al. Moving HER2-low breast cancer predictive and prognostic data from clinical trials into the real world. Front Mol Biosci. 2022 Sep 26;9:996434. doi: 10.3389/fmolb.2022.996434. PMID: 36225259; PMCID: PMC9549400.
25. Zattarin E, Nichetti F, Ligorio F, et al. Case Report: Prolonged clinical benefit with sequential trastuzumab-containing treatments in a patient with advanced extramammary Paget disease of the groin. Front Oncol. 2022 Aug 18;12:925551. doi: 10.3389/fonc.2022.925551. PMID: 36059635; PMCID: PMC9433574.
26. Galli G, Corsetto PA, Proto C, et al. Circulating Fatty Acid Profile as a Biomarker for Immunotherapy in Advanced Non-Small Cell Lung Cancer. Clin Lung Cancer. 2022 Nov;23(7):e489-e499. doi: 10.1016/j.cllc.2022.07.010. Epub 2022 Jul 21. PMID: 35948460.
27. Ligorio F, Fucà G, Provenzano L, et al. Exceptional tumour responses to fasting-mimicking diet combined with standard anticancer therapies: A sub-analysis of the NCT03340935 trial. Eur J Cancer. 2022 Sep;172:300-310. doi: 10.1016/j.ejca.2022.05.046. Epub 2022 Jul 8. PMID: 35810555.
28. Ligorio F, Di Cosimo S, Verderio P, et al. Predictive Role of CD36 Expression in HER2-Positive Breast Cancer Patients Receiving Neoadjuvant Trastuzumab. J Natl Cancer Inst. 2022 Dec 8;114(12):1720-1727. doi: 10.1093/jnci/djac126. PMID: 35789270.
29. Niger M, Nichetti F, Casadei-Gardini A, et al. MGMT inactivation as a new biomarker in patients with advanced biliary tract cancers. Mol Oncol. 2022 Jul;16(14):2733-2746. doi: 10.1002/1878-0261.13256. Epub 2022 Jun 13. PMID: 35621918; PMCID: PMC9297767.
30. Azzollini J, Vingiani A, Agnelli L, et al. Management of BRCA Tumour Testing in an Integrated Molecular Tumour Board Multidisciplinary Model. Front Oncol. 2022 Apr 8;12:857515. doi: 10.3389/fonc.2022.857515. PMID: 35463374; PMCID: PMC9026437.
31. Niger M, Nichetti F, Dell'Angelo F, et al. Acquired Resistance Mechanisms to PD-L1 Blockade in a Patient With Microsatellite Instability-High Extrahepatic Cholangiocarcinoma. JCO Precis Oncol. 2022 Mar;6:e2100472. doi:10.1200/PO.21.00472. PMID: 35319965.
32. Silvestri M, Dugo M, Vismara M, et al. Copy number alterations analysis of primary tumor tissue and circulating tumor cells from patients with early-stage triple negative breast cancer. Sci Rep. 2022 Jan 27;12(1):1470. doi: 10.1038/s41598-022-05502-6. PMID: 35087134; PMCID: PMC8795239.
33. Di Cosimo S, Depretto C, Miceli R, et al. Mammographic density to predict response to neoadjuvant systemic breast cancer therapy. J Cancer Res Clin Oncol. 2022 Apr;148(4):775-781. doi: 10.1007/s00432-021-03881-3. Epub 2022 Jan 17. PMID: 35037102.
34. Loi S, Salgado R, Adams S, et al. Tumor infiltrating lymphocyte stratification of prognostic staging of early-stage triple negative breast cancer. NPJ Breast Cancer. 2022 Jan 11;8(1):3. doi: 10.1038/s41523-021-00362-1. PMID: 35017545; PMCID: PMC8752727.
35. Corrao G, Marvaso G, Zaffaroni M, et al. Correlation between radiological and biological features and clinical outcomes in early prostate cancer: an exploratory subgroup analysis. Neoplasma. 2022 Mar;69(2):404-411. doi: 10.4149/neo_2021_210622N828. Epub 2022 Jan 12. PMID: 35014537.
36. El Bairi K, Haynes HR, Blackley E, et al. International Immuno-Oncology Biomarker Working Group. The tale of TILs in breast cancer: A report from The International Immuno-Oncology Biomarker Working Group. NPJ Breast Cancer. 2021 Dec 1;7(1):150. doi: 10.1038/s41523-021-00346-1. PMID: 34853355; PMCID: PMC8636568.
37. Vernieri C, Fucà G, Ligorio F, et al. Fasting-Mimicking Diet Is Safe and Reshapes Metabolism and Antitumor Immunity in Patients with Cancer. Cancer Discov. 2022 Jan;12(1):90-107. doi: 10.1158/2159-8290.CD-21-0030. Epub 2021 Nov 17. PMID: 34789537; PMCID: PMC9762338.
38. Aftimos P, Oliveira M, Irrthum A, et al. Genomic and Transcriptomic Analyses of Breast Cancer Primaries and Matched Metastases in AURORA, the Breast International Group (BIG) Molecular Screening Initiative. Cancer Discov. 2021 Nov;11(11):2796-2811. doi: 10.1158/2159-8290.CD-20-1647. Epub 2021 Jun 28. PMID: 34183353; PMCID: PMC9414283.
39. Ripamonti CB, Bossi P, Manoukian S, et al. Malignant salivary gland tumours in families with breast cancer susceptibility. Virchows Arch. 2021 ul;479(1):221-226. doi: 10.1007/s00428-021-03105-6. Epub 2021 Jun 8. PMID: 34100114.
40. Reduzzi C, Di Cosimo S, Gerratana L, et al. Circulating Tumor Cell Clusters Are Frequently Detected in Women with Early-Stage Breast Cancer. Cancers (Basel). 2021 May 13;13(10):2356. doi: 10.3390/cancers13102356. PMID: 34068368; PMCID: PMC8153325.
41. Ligorio F, Pellegrini I, Castagnoli L, et al. Targeting lipid metabolism is an emerging strategy to enhance the efficacy of anti-HER2 therapies in HER2-positive breast cancer. Cancer Lett. 2021 Jul 28;511:77-87. doi: 10.1016/j.canlet.2021.04.023. Epub 2021 May 5. PMID: 33961924.
42. Ligorio F, Zambelli L, Bottiglieri A, et al. Hormone receptor status influences the impact of body mass index and hyperglycemia on the risk of tumor relapse in early-stage HER2-positive breast cancer patients. Ther Adv Med Oncol. 2021 Apr 16;13:17588359211006960. doi: 10.1177/17588359211006960. PMID: 33948122; PMCID: PMC8053837.
43. Silvestri M, Reduzzi C, Feliciello G, et al. Detection of Genomically Aberrant Cells within Circulating Tumor Microemboli (CTMs) Isolated from Early-Stage Breast Cancer Patients. Cancers (Basel). 2021 Mar 19;13(6):1409. doi: 10.3390/cancers13061409. PMID: 33808748; PMCID: PMC8003526.
44. Ortolan E, Appierto V, Silvestri M, et al. Blood-based genomics of triple-negative breast cancer progression in patients treated with neoadjuvant chemotherapy. ESMO Open. 2021 Apr;6(2):100086. doi: 10.1016/j.esmoop.2021.100086. Epub 2021 Mar 17. PMID: 33743331; PMCID: PMC8010400.
45. Villa A, Garofalo M, Crescenti D, et al. Transplantation of autologous extracellular vesicles for cancer-specific targeting. Theranostics. 2021 Jan 1;11(5):2034-2047. doi:10.7150/thno.51344. PMID: 33500707; PMCID: PMC7797692.

46. Garofalo M, Villa A, Brunialti E, et al. Cancer-derived EVs show tropism for tissues at early stage of neoplastic transformation. Nanotheranostics. 2021 Jan 1;5(1):1-7. doi:10.7150/ntno.47226. PMID: 33391971; PMCID: PMC7738946.
47. Zattarin E, Leporati R, Ligorio F, et al. Hormone Receptor Loss in Breast Cancer: Molecular Mechanisms, Clinical Settings, and Therapeutic Implications. Cells. 2020 Dec 9;9(12):2644. doi: 10.3390/cells9122644. PMID: 33316954; PMCID: PMC7764472.
48. Lo Riso P, Villa CE, Gasparoni G, et al. A cell-of-origin epigenetic tracer reveals clinically distinct subtypes of high-grade serous ovarian cancer. Genome Med. 2020 Oct 30;12(1):94. doi:10.1186/s13073-020-00786-7. PMID: 33121525; PMCID: PMC7597028.
49. Bozzini A, Nicosia L, Pruneri G, et al. Clinical performance of contrast-enhanced spectral mammography in pre-surgical evaluation of breast malignant lesions in dense breasts: a single center study. Breast Cancer Res Treat. 2020 Dec;184(3):723-731. doi: 10.1007/s10549-020-05881-2. Epub 2020 Aug 28. PMID: 32860166; PMCID: PMC7655556.
50. Criscitiello C, Vingiani A, Maisonneuve P, et al. Tumor-infiltrating lymphocytes (TILs) in ER+/HER2- breast cancer. Breast Cancer Res Treat. 2020 Sep;183(2):347-354. doi: 10.1007/s10549-020-05771-7. Epub 2020 Jul 3. PMID: 32621251.
51. Depretto C, Borelli A, Liguori A, et al. Contrast-enhanced mammography in the evaluation of breast calcifications: preliminary experience. Tumori. 2020 Dec;106(6):491-496. doi:10.1177/0300891620919170. Epub 2020 Jun 9. PMID: 32515663.
52. Hudeček J, Voorwerk L, van Seijen M, et al. International Immuno-Oncology Biomarker Working Group. Application of a risk-management framework for integration of stromal tumor-infiltrating lymphocytes in clinical trials. NPJ Breast Cancer. 2020 May 12;6:15. doi: 10.1038/s41523-020-0155-1. PMID: 32436923; PMCID: PMC7217941.
53. Kos Z, Roblin E, Kim RS, et al. International Immuno-Oncology Biomarker Working Group. Pitfalls in assessing stromal tumor infiltrating lymphocytes (sTILs) in breast cancer. NPJ Breast Cancer. 2020 May 12;6:17. doi: 10.1038/s41523-020-0156-0. PMID: 32411819; PMCID: PMC7217863. Amgad M, Stovgaard ES, Balslev E, et al. International Immuno-Oncology Biomarker Working Group. Report on computational assessment of Tumor Infiltrating Lymphocytes from the International Immuno-Oncology Biomarker Working Group. NPJ Breast Cancer. 2020 May 12;6:16. doi:10.1038/s41523-020-0154-2. PMID: 32411818; PMCID: PMC7217824.
54. Alfieri S, Carenzo A, Platini F, et al. Tumor Biomarkers for the Prediction of Distant Metastasis in Head and Neck Squamous Cell Carcinoma. Cancers (Basel). 2020 Apr 9;12(4):922. doi: 10.3390/cancers12040922. PMID: 32283719; PMCID: PMC7225924.
55. Di Cosimo S, Appierto V, Silvestri M, et al. Primary tumor somatic mutations in the blood of women with ductal carcinoma in situ of the breast. Ann Oncol. 2020 Mar;31(3):435-437. doi: 10.1016/j.annonc.2019.11.022. Epub 2019 Dec 11. PMID: 32067686.
56. Lazzeroni M, DeCensi A, Guerrieri-Gonzaga A, et al. Prognostic and predictive value of cell cycle progression (CCP) score in ductal carcinoma in situ of the breast. Mod Pathol. 2020 Jun;33(6):1065-1077. doi: 10.1038/s41379-020-0452-0. Epub 2020 Jan 10. PMID: 31925342.
57. Minna E, Brich S, Todoerti K, et al. Cancer Associated Fibroblasts and Senescent Thyroid Cells in the Invasive Front of Thyroid Carcinoma. Cancers (Basel). 2020 Jan 1;12(1):112. doi: 10.3390/cancers12010112. PMID: 31906302; PMCID: PMC7016563.
58. Conforti F, Pala L, Pagan E, et al. Endocrine-responsive lobular carcinoma of the breast: features associated with risk of late distant recurrence. Breast Cancer Res. 2019 Dec 30;21(1):153. doi: 10.1186/s13058-019-1234-9. PMID: 31888717; PMCID: PMC6937973.
59. Di Cosimo S, Appierto V, Silvestri M, et al. Targeted-Gene Sequencing to Catch Triple Negative Breast Cancer Heterogeneity before and after Neoadjuvant Chemotherapy. Cancers (Basel). 2019 Nov 8;11(11):1753. doi: 10.3390/cancers11111753. PMID: 31717320; PMCID: PMC6895966.
60. Leonardi MC, Corrao G, Frassoni S, et al. Ductal carcinoma in situ and intraoperative partial breast irradiation: Who are the best candidates? Long-term outcome of a single institution series. Radiother Oncol. 2019 Apr;133:68-76. doi: 10.1016/j.radonc.2018.12.030. Epub 2019 Jan 17. PMID: 30935584.
61. Summers PE, Vingiani A, Di Pietro S, et al. Towards mm-wave spectroscopy for dielectric characterization of breast surgical margins. Breast. 2019 Jun;45:64-69. doi: 10.1016/j.breast.2019.02.008. Epub 2019 Feb 27. PMID: 30884340.
62. Loi S, Drubay D, Adams S, et al. Tumor-Infiltrating Lymphocytes and Prognosis: A Pooled Individual Patient Analysis of Early-Stage Triple-Negative Breast Cancers. J Clin Oncol. 2019 Mar 1;37(7):559-569. doi: 10.1200/JCO.18.01010. Epub 2019 Jan 16. PMID: 30650045; PMCID: PMC7010425.
63. Luen SJ, Salgado R, Dieci MV, et al. Prognostic implications of residual disease tumor-infiltrating lymphocytes and residual cancer burden in triple-negative breast cancer patients after neoadjuvant chemotherapy. Ann Oncol. 2019 Feb 1;30(2):236-242. doi: 10.1093/annonc/mdy547. PMID: 30590484.
64. Galimberti V, Morigi C, Bagnardi V, et al. Oncological Outcomes of Nipple-Sparing Mastectomy: A Single-Center Experience of 1989 Patients. Ann Surg Oncol. 2018 Dec;25(13):3849-3857.doi: 10.1245/s10434-018-6759-0. Epub 2018 Sep 17. PMID: 30225833.
65. Bozzini A, Cassano E, Raciti D, et al. Analysis of Efficacy and Accuracy of 2 Vacuum-Assisted Breast Biopsy Devices: Mammotome and Elite. Clin Breast Cancer. 2018 Dec;18(6):e1277-e1282. doi:10.1016/j.clbc.2018.06.014. Epub 2018 Jun 30. PMID: 30072194.
66. Patten DK, Corleone G, Győrffy B, et al. Enhancer mapping uncovers phenotypic heterogeneity and evolution in patients with luminal breast cancer. Nat Med. 2018 Sep;24(9):1469-1480. doi: 10.1038/s41591-018-0091-x. Epub 2018 Jul 23. PMID: 30038216; PMCID: PMC6130800.
67. Criscitiello C, Bagnardi V, Pruneri G, et al. Prognostic value of tumour-infiltrating lymphocytes in small HER2-positive breast cancer. Eur J Cancer. 2017 Dec;87:164-171. doi: 10.1016/j.ejca.2017.10.011. Epub 2017 Nov 15. PMID: 29154173.
68. Marchetti A, Barberis M, Di Lorito A, et al. Gene Fusion in Advanced Lung Cancer in Women: A Systematic Analysis, Review of the Literature, and Diagnostic Algorithm. JCO Precis Oncol. 2017 Nov;1:1-9. doi: 10.1200/PO.16.00010. PMID: 35172481.
69. Hendry S, Salgado R, Gevaert T, et al. Assessing Tumor-Infiltrating Lymphocytes in Solid Tumors: A Practical Review for Pathologists and Proposal for a Standardized Method from the International Immuno-Oncology Biomarkers Working Group: Part 2: TILs in Melanoma, Gastrointestinal Tract Carcinomas, Non-Small Cell Lung Carcinoma and Mesothelioma, Endometrial and Ovarian Carcinomas, Squamous Cell Carcinoma of the Head and Neck, Genitourinary Carcinomas, and Primary Brain Tumors. Adv Anat Pathol. 2017 Nov;24(6):311-335. doi: 10.1097/PAP.0000000000000161. PMID: 28777143; PMCID: PMC5638696.
70. Hendry S, Salgado R, Gevaert T, et al. Assessing Tumor-infiltrating Lymphocytes in Solid Tumors: A Practical Review for Pathologists and Proposal for a Standardized Method From the International Immunooncology Biomarkers Working Group: Part 1: Assessing the Host Immune Response, TILs in Invasive Breast Carcinoma and Ductal Carcinoma In Situ, Metastatic Tumor Deposits and Areas for Further Research. Adv Anat Pathol. 2017 Sep;24(5):235-251. doi: 10.1097/PAP.0000000000000162. PMID: 28777142; PMCID:

PMC5564448.
71. Montagna E, Vingiani A, Maisonneuve P, et al. Colleoni M. Unfavorable prognostic role of tumor-infiltrating lymphocytes in hormone-receptor positive, HER2 negative metastatic breast cancer treated with metronomic chemotherapy. Breast. 2017 Aug;34:83-88. doi: 10.1016/j.breast.2017.05.009. Epub 2017 May 23. PMID: 28544923
72. Paiardi C, Mirzoyan Z, Zola S, et al. The Stearoyl-CoA Desaturase-1 (Desat1) in Drosophila cooperated with Myc to Induce Autophagy and Growth, a Potential New Link to Tumor Survival. Genes (Basel). 2017 Apr 28;8(5):131. doi: 10.3390/genes8050131. PMID: 28452935; PMCID: PMC5448005.
73. Pruneri G, Lazzeroni M, Bagnardi V, et al. The prevalence and clinical relevance of tumor-infiltrating lymphocytes (TILs) in ductal carcinoma in situ of the breast. Ann Oncol. 2017 Feb 1;28(2):321-328. doi: 10.1093/annonc/mdw623. PMID: 28426105.
74. Pruneri G, Vingiani A, Denkert C. Tumor infiltrating lymphocytes in early breast cancer. Breast. 2018 Feb;37:207-214. doi: 10.1016/j.breast.2017.03.010. Epub 2017 Mar 28. PMID: 28363679.
75. Nicosia L, Alessi S, Proh M, et al. Solitary thyroid metastasis from colon cancer: a rare case report. Ecancermedicalscience. 2016 Nov 24;10:696. doi: 10.3332/ecancer.2016.696. PMID: 28101139; PMCID: PMC5215259.
76. Pruneri G, Bonizzi G, Vingiani A. Biomarkers for the identification of recurrence in human epidermal growth factor receptor 2-positive breast cancer patients. Curr Opin Oncol. 2016 Nov;28(6):476-483. doi: 10.1097/CCO.0000000000000330. PMID: 27649027.
77. Pruneri G, Gray KP, Vingiani A, et al. Tumor-infiltrating lymphocytes (TILs) are a powerful prognostic marker in patients with triple-negative breast cancer enrolled in the IBCSG phase III randomized clinical trial 22-00. Breast Cancer Res Treat. 2016 Jul;158(2):323-31. doi: 10.1007/s10549-016-3863-3. Epub 2016 Jul 2. PMID: 27372069; PMCID: PMC4977583.
78. Pruneri G, Vingiani A, Bagnardi V, et al. Clinical validity of tumor-infiltrating lymphocytes analysis in patients with triple-negative breast cancer. Ann Oncol. 2016 Feb;27(2):249-56. doi: 10.1093/annonc/mdv571. Epub 2015 Nov 23. PMID: 26598540.
79. DeCensi A, Puntoni M, Guerrieri-Gonzaga A, et al. Effect of Metformin on Breast Ductal Carcinoma In Situ Proliferation in a Randomized Presurgical Trial. Cancer Prev Res (Phila). 2015 Oct;8(10):888-94. doi: 10.1158/1940-6207.CAPR-15-0048. Epub 2015 Aug 14. PMID: 26276754.
80. Azim HA Jr, Vingiani A, Peccatori F, et al. Tumour infiltrating lymphocytes (TILs) in breast cancer during pregnancy. Breast. 2015 Jun;24(3):290-3. doi: 10.1016/j.breast.2015.01.009. Epub 2015 Feb 18. PMID: 25702955.
81. Vingiani A, Maisonneuve P, Dell'orto P, et al. The clinical relevance of micropapillary carcinoma of the breast: a case-control study. Histopathology. 2013 Aug;63(2):217-24. doi: 10.1111/his.12147. Epub 2013 Jun 13. PMID: 23763700.
82. Corbellini C, Vingiani A, Maffini F, et al. Retroperitoneal pararenal isolated neurofibroma: report of a case and review of literature. Ecancermedicalscience. 2012;6:253. doi: 10.3332/ecancer.2012.253. Epub 2012 May 15. PMID: 22654960; PMCID: PMC3357181.
83. Maffini F, Vingiani A, Lepanto D, et al.. Salivary gland choristoma in large bowel. Endoscopy. 2012;44 Suppl 2 UCTN:E13-4. doi: 10.1055/s-0031-1291498. Epub 2012 Mar 6. PMID: 22396253.