

Nicola FUSCO, M.D.

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Areas of Expertise

Breast Pathology, Immunopathology, Surgical pathology, Molecular pathology, Digital pathology, Translational research.

Current positions

05/07/2021 – present: Director, Biobank for Translational Medicine Unit (B4MED), IRCCS European Institute of Oncology (IEO), Milan, Italy.

01/03/2020 – present: Associate Professor (Pathology, SSD MED/08), University of Milan, Department of Oncology and Hemato-Oncology, Milan, Italy

06/01/2020 – present: Attending Pathologist, Division of Pathology, IRCCS European Institute of Oncology (IEO), Milan, Italy.

09/2018 – present: Appointed Professor, Ph.D. Program in Translational Medicine, University of Milan, Italy

11/2017 – present: Lecturer / Instructor (Professor of Pathology), Medical School, International Medical School, School of Pathology, University of Milan, Italy.

Education and academic titles

19/04/2019: National Scientific Qualification as Associate Professor in Pathology (Abilitazione Scientifica Nazionale a Professore di Seconda Fascia) SSD MED/08, SD 06/A4 (Italian Ministry of Education, Universities, and Research)

18/05/2015: Pathologist (University of Milan, Italy)

31/10/2008: Doctor of Medicine (Bachelor of Medicine, Bachelor of Surgery) Board position: OMCeONO 3917 (University of Eastern Piedmont, Novara, Italy)

Professional experience

01/12/2016 – 30/11/2019: Attending Pathologist, Division of Pathology, Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milan, Italy.

01/12/2016 – 30/11/2019: Pathology Research Associate (RTD-A, SSD MED/08), University of Milan, Department of Biomedical, Surgical and Dental Sciences, Milan, Italy.

1/2016 – 12/2016: Post-Doc Fellow, University of Milan, Department of Pathophysiology and Transplantation, Milan, Italy.

6/2015 – 12/2016: Research Fellow, Division of Pathology, Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milan, Italy.

5/2010 – 5/2015: Resident in Pathology / Pathology Fellow, School of Pathology, University of Milan, Italy.

- Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milan, Italy.
- IRCSS Istituto Clinico Humanitas, Rozzano (MI), Italy.
- Luigi Sacco Hospital, Milan, Italy.
- San Paolo Hospital, Milan, Italy.

11/2013 - 10/2014: Visiting Investigator, Memorial Sloan Kettering Cancer Center, New York, NY, USA.

7/2009 - 5/2010: Research Fellow, San Paolo Hospital, Milan, Italy.

6/2008 - 6/2009: Post-graduate training in Pathology (Tenure), Novara University Hospital, Novara, Italy.

Language Skills

Italian (mother tongue), English (full proficiency)

Teaching activity (SSD MED/08)

School of Medicine and International Medical School, University of Milan, Italy

- Lecturer (surgical pathology, molecular pathology, immunopathology) – POLO CENTRALE / IMS
 - Practical course in surgical pathology, DIDATTICA NON FORMALE (D51-31)
 - ✓ AA 2018/2019 64 HOURS
 - ✓ AA 2017/2018 48 HOURS
 - ✓ AA 2016/2017 25 HOURS
 - SYSTEM DISEASES 3 (D56-107), MODULO PATHOLOGY
 - ✓ AA 2018/2019 4 HOURS
 - SYSTEM DISEASES 2 (D56-106), MODULO PATHOLOGY
 - ✓ AA 2018/2019 2 HOURS

- ✓ AA 2017/2018 2 HOURS
- NEUROBIOLOGY, HUMAN BEHAVIOUR AND CLINICAL NEUROSCIENCE (D56-114), MODULO PATHOLOGY (DOCENTE RESPONSABILE DEL MODULO)
 - ✓ AA 2018/2019 8 HOURS
- CLINICAL ONCOLOGY AND RADIOTHERAPY (D56-111), MODULO PATHOLOGY (DOCENTE RESPONSABILE DEL MODULO)
 - ✓ AA 2018/2019 12 HOURS
- CLINICAL AND SURGICAL PATHOLOGY (D56-115), MODULO UNICO
 - ✓ AA 2018/2019 9 HOURS
 - ✓ AA 2017/2018 6 HOURS
- SEMEIOTICA E PATOLOGIA DEGLI APPARATI I (D51-65), MODULO ANATOMIA PATOLOGICA (DOCENTE RESPONSABILE DEL MODULO PER L'EDIZIONE SAN GIUSEPPE)
 - ✓ AA 2017/2018 12 HOURS
- Coordinator of the internship "*Clinical and Experimental Pathology*"
- Coordinator of the Internship "*Clinical Management of Breast Cancer*"
- Tutor

Ph.D. Program in Translational Medicine, University of Milan, Italy

- Appointed teacher, lines of research:
 - Three-dimensional prostate model use and augmented-reality during robot-assisted radical prostatectomy (2020-2021)
 - Immunopathology in solid tumors (2019-2020)
 - DNA repair alterations in breast cancer (2018-2019)
- Coordinator and regular teacher of the courses:
 - "Impact of translational research in the clinical management of cancer patients" (2020-2021)
 - "Immunopathology in translational research and clinical practice" (2019-2020)
 - "Molecular and Immunopathology" (2018-2019)

Biomedical omics (Classe LM-9)-enrolled from academic year 2020/21

- OMICS IN DIAGNOSTICS
 - ✓ AA 2021/2022

School of Pathology, University of Milan, Italy

- JOURNAL CLUB DI ANATOMIA PATOLOGICA IN LINGUA INGLESE (QUARTO ANNO) (56S-2), MODULO UNICO (DOCENTE RESPONSABILE DEL MODULO)
 - ✓ AA 2017/2018 8 HOURS
- JOURNAL CLUB DI ANATOMIA PATOLOGICA IN LINGUA INGLESE (PRIMO ANNO) (56S-17), MODULO UNICO (DOCENTE RESPONSABILE DEL MODULO)
 - ✓ AA 2017/2018 8 HOURS
 - ✓ AA 2016/2017 8 HOURS
 - ✓ AA 2015/2016 8 HOURS
- JOURNAL CLUB DI ANATOMIA PATOLOGICA IN LINGUA INGLESE (SECONDO ANNO) (56S-12), MODULO UNICO (DOCENTE RESPONSABILE DEL MODULO)
 - ✓ AA 2017/2018 8 HOURS
 - ✓ AA 2016/2017 8 HOURS
 - ✓ AA 2015/2016 8 HOURS
- JOURNAL CLUB DI ANATOMIA PATOLOGICA IN LINGUA INGLESE (TERZO ANNO) (56S-6), MODULO UNICO (DOCENTE RESPONSABILE DEL MODULO)
 - ✓ AA 2017/2018 8 HOURS
 - ✓ AA 2016/2017 8 HOURS
- ANATOMIA PATOLOGICA 1 (56S-19), MODULO LEZIONI PRATICHE (DOCENTE RESPONSABILE DEL MODULO)
 - ✓ AA 2016/2017 15 HOURS
 - ✓ AA 2015/2016 15 HOURS
- INGLESE 3 (02S-6), MODULO UNICO (DOCENTE RESPONSABILE DEL MODULO)
 - ✓ AA 2016/2017 15 HOURS
 - ✓ AA 2015/2016 15 HOURS
- INGLESE 2 (02S-15), MODULO UNICO (DOCENTE RESPONSABILE DEL MODULO)
 - ✓ AA 2015/2016 15 HOURS

School of Dentistry, University of Milan, Italy (11/2017 – 11/2019)

- ANATOMIA PATOLOGICA (D54-23), MODULO UNICO
 - ✓ AA 2018/2019 **10 HOURS**
 - ✓ AA 2017/2018 **10 HOURS**

School of Dental Hygienist, University of Milan, Italy (11/2017 – 09/2018)

- SCIENZE MEDICO-CHIRURGICHE (D79-14), MODULO ANATOMIA PATOLOGICA (DOCENTE RESPONSABILE DEL MODULO)
 - ✓ AA 2017/2018 10 HOURS

Corso di Master di II livello in Psiconcologia University of Milan (12/3/2021-11/3/2022)

- Fondamenti di patologia oncologica (8h)

Corso di Master II livello “Prevenzione, Genetica e Trattamento del Tumore Mammario Ereditario”, University of Milan (15/3-20/9/2021)

- Geni ad alta penetranza per il carcinoma mammario
 - ✓ AA 2020/2021 10 HOURS
- Istopatologia del carcinoma mammario II
 - ✓ AA 2020/2021 16 HOURS

Corso di Master “Farmacia e Farmacologia Oncologica”, University of Milan (2020 - present)

- Biomarcatori per la selezione del paziente da trattare con immunoterapia
 - ✓ AA 2020/2021 2 HOURS
 - ✓ AA 2019/2020 2 HOURS

Other academic activities

- **Ph.D. Program in Clinical and Translational Sciences, University of Pisa, Italy**
 - Discussant for the thesis: “The metastatic potential of grade 1 breast carcinoma of no special type: a deep insight into putative molecular mechanisms” by Claudia Scopelliti, December 2019
- **Ph.D. Program in Translational and Molecular Medicine, University of Milano-Bicocca, Italy**
 - Discussant for the thesis: “MALDI-MSI in the study of glomerulonephritis: Possible molecular indicators of CKD progression” by Andrew Smith, March 2017
- **Corso di Master “Metodologie di anatomia patologica per lo studio dei marcatori predittivi di risposta terapeutica”, University of Naples Federico II.**
 - Lecture: “Biomarcatori nel carcinoma mammario e ovarico”. 10 July 2020. Virtual Meeting.
- **Corso di aggiornamento professionale universitario in riabilitazione oncologica, University of Eastern Piedmont**
 - Lecture: “Biomarcatori, predittività e complicanze di interesse riabilitativo nel carcinoma della mammella”. December 2020. Blended Virtual Course.

Thesis supervisor

- “Morpho-molecular characterization of tumor immune microenvironment in ductal carcinoma in situ of the breast for the identification of women at higher risk of recurrence” by Alberto Concardi, School of Medicine, 2021 (**Relatore**)
- “Association of tissue and circulating biomarkers with radiomic features in patients with advanced non-small cell lung cancer” by Stefano Natangelo, School of Medicine, 2021 (**Relatore**)
- “Analisi dell’espressione di microRNA nelle diverse popolazioni cellulari dei carcinomi della mammella di tipo osteoclast-like” by Alice Premoli, Laboratory Technician Bachelor’s Degree program, 2020 (**Relatore**)
- “Capturing the role of the immune regulatory system in pregnancy-associated breast cancers” by Roberto Croci, School of Medicine, 2019 (**Correlatore**)
- “Assessing the risk of breast cancer related lymphedema: a multidisciplinary approach for a paradigm-shift in the clinical management” by Anna Michelotti, School of Medicine, 2018 (**Relatore**)
- “Caratteristiche istologiche della biopsia osteomidollare nei pazienti con sindromi mielodisplastiche in trattamento con azacitidina” by Livia Maria Rita Marcon, School of Medicine, 2018 (**Correlatore**)
- “Caratteristiche istologiche della biopsia osteomidollare nei pazienti con sindromi mielodisplastiche in trattamento con eritropoietina” by Marco Barella, School of Medicine, 2018 (**Correlatore**)
- “BRAF^{V600E} e ameloblastoma: risultati di uno studio retrospettivo osservazionale multicentrico” by Monica Slongo, School of Medicine, 2018 (**Correlatore**)
- “Molecular testing for mismatch repair and PTEN status in breast cancer: clinical implications and perspectives in immunotherapy” by Chiara Corti, School of Medicine, 2018 (**Correlatore**)
- “La realtà aumentata nei tumori del cavo orale: integrare la tecnologia “Narrow Band Imaging” con la patologia molecolare. Uno studio pilota per una chirurgia radicale ultra-personalizzata” by Camilla Mazzucato, School of Medicine, 2017 (**Correlatore**)
- “PTEN immunohistochemistry is a predictor of mismatch repair status in breast cancer” by Gianluca Lopez, School of Medicine, 2017 (**Correlatore**)

Journal Editor

- BMC Medicine, Editorial Advisor (8.775)
- Frontiers in Oncology, Associate Editor (Breast Cancer section) and Guest Associate Editor (Women’s Cancer section) (6.244)
- Cancer Cell International, Associate Editor (5.722)
- BMC Cancer, Editorial Board Member (4.430)
- Systems Interactions and Organ Networks, Editorial Board Member
- Genes, Editor (Special Issue “Molecular Biomarkers in Solid Tumors”), 2020-2021 (4.096)

Journal Referee

- Elsevier Publishing Company (books)
- Cancer Treatment Reviews (12.111)
- European Journal of Cancer (9.162)
- International Journal of Cancer (7.396)
- British Journal of Surgery (6.939)
- Cellular Oncology (6.730)
- Cancers (6.639)
- ESMO Open (6.540)
- Translational Lung Cancer Research (6.498)
- Critical Reviews in Oncology/Hematology (6.312)
- Biomedicines (6.081)

- Journal of Translational Medicine (5.531)
- Oncotarget (5.168)
- Breast Cancer Research and Treatment (4.872)
- European Journal of Pharmacology (4.432)
- BMC Cancer (4.430)
- EJSO European Journal of Surgical Oncology (4.424)
- Cancer Biomarkers (4.388)
- Breast (4.380)
- Scientific Reports (4.379)
- Pathobiology (4.342)
- Journal of Clinical Medicine (4.241)
- OncoTargets and Therapy (4.137)
- Orphanet Journal of Rare Diseases (4.123)
- Virchows Archiv (4.064)
- Frontiers in Biosciences-Landmark (4.009)
- Cancer Management and Research (3.989)
- IUBMB Life (3.885)
- Life (3.817)
- International Journal of Medical Sciences (3.738)
- Diagnostics (3.706)
- Current Cancer Drug Targets (3.428)
- Future Oncology (3.404)
- Technology in Cancer Research & Treatment (3.399)
- International Journal of Environmental Research and Public Health (3.390)
- Risk Management and Healthcare Policy (3.200)
- Medical Oncology (3.064)
- Oncology Letters (2.967)
- Medical Science Monitor (2.649)
- International Journal of Clinical Practice (2.503)
- Therapeutics and Clinical Risk Management (2.423)
- World Journal of Surgical Oncology (2.754)
- Journal of International Medical Research (1.671)
- International Journal of Surgical Pathology (1.271)

Awards and achievements

- Author of the “Recommendations for the management of bioptic and surgical samples of patients with breast carcinoma candidates for neo adjuvant therapy” from the Study Group of Breast Pathology / Italian Society of Pathology (GIPaM/SIAPeC), 2021
- Co-founder and Scientific Board member at 4oncommunity.com a ticketing service and portal for oncology and molecular pathology specialists where to share experience and exchange information with the oncology and predictive pathology community. 2020
- Targos Molecular Pathology certification “Trainer for PD-L1 Testing (22C3) in Head & Neck Carcinoma”, Kassel, Germany, January 2020
- Young Survival Coalition (YSC) mention “Guiding Researchers & Advocates to Scientific Partnership” for the work “Integrated analysis of mismatch repair, PD-L1, and immune microenvironment status in pregnancy-associated breast cancers” – San Antonio Breast Cancer Symposium (SABCS), San Antonio, TX, USA, December 2019
- Best Young Speaker Award – Italian Society of Pathology (SIAPeC) Annual Meeting, Milan, Italy, September 2015

Funded projects

- IFALT - Insufficienza Respiratoria in Riceventi Trapianto di Polmone (ARS01_00530)
PON PNR 2015-2020 Ente finanziatore: MINISTERO DELL'ISTRUZIONE, DELL'UNIVERSITA' E DELLA RICERCA
Role: Collaborator

Scientific organizations

- Italian Society of Pathology (SIAPeC) - Member
- Italian Group for the Study of Breast Pathology (GIPaM/SIAPEC) – Member of the Council, Social media manager
- International Academy of Pathology - Member
- European Society of Breast Cancer Specialists (EUSOMA) – Member
- European Society of Medical Oncology (ESMO) - Member
- American Society of Clinical Oncology (ASCO) – Member

Foundations

- OXIAMO Onlus – Member of the Scientific Committee (12/2018 – present)

Major Invited Talks

2021

- **ASCO/CAP: proposta di algoritmo diagnostic per la definizione di HER2 low breast cancer e proposta di nuove modalita' di refertazione.** HER2-low breast cancer: a new entity in the field? 15 Dicembre 2021. Milan, Italy (**Faculty**)

- **Significato biologico e prognostico legato a espressione bassa/moderata di HER2.** HER2-low breast cancer: a new entity in the field? 15 Dicembre 2021. Milan, Italy (**Faculty**)
- **Terapia Neoadiuvante: Nuove Raccomandazioni del GIPaM.** Italian Society of Pathology (SIAPeC) Congress. 24 November 2021. Virtual Meeting
- **Patologia molecolare: focus sull'individuazione e la refertazione delle uncommon.** In-depth analysis of EGFR uncommon mutations. 24 November 2021. Virtual Meeting
- **Best practice per la discussione dei casi clinici: team multidisciplinare e TMB.** In-depth analysis of EGFR uncommon mutations. 24 November 2021. Virtual Meeting
- **PD-L1 and PIK3CA testing in breast cancer.** Attualità in Senologia. 19 November 2021. Virtual Meeting
- **Test genomici: i gaps da colmare per rendere il test più vicino alla pratica clinica.** La diagnostica molecolare e il tumore della mammella. 15 Novembre 2021. Virtual Meeting
- **ASCO/CAP: proposta di algoritmo diagnostic per la definizione di HER2 low breast cancer e proposta di nuove modalità di refertazione.** HER2-low breast cancer: a new entity in the field? 10 Novembre 2021. Milan, Italy (**Faculty**)
- **Significato biologico e prognostico legato a espressione bassa/moderata di HER2.** HER2-low breast cancer: a new entity in the field? 10 Novembre 2021. Milan, Italy (**Faculty**)
- **PIK3CA alterations in breast cancer, focus on: liquid biopsy. (Faculty and Scientific Director)** 27 October 2021. Virtual Meeting
- **PIK3CA alterations in breast cancer, focus on: tissue sample. (Faculty and Scientific Director)** 20 October 2021. Virtual Meeting
- **Medicina di precisione: biomarcatori e predittività.** Medicina tralazionale: aggiornamenti. 19 October 2021. Virtual Meeting
- **PIK3CA alterations in breast cancer, focus on: technology. (Faculty and Scientific Director)** 13 October 2021. Virtual Meeting
- **Beyond the doors of MDT meeting: impact on HR+HER2- breast cancer patients.** ABC6 Virtual Congress – Satellite Symposium. October 2021. Virtual Meeting
- **How to enhance collaboration between pathologists and molecular biologists.** SPCC Precision Testing Project. Rules, collaborations, and harmonization to improve access to precision testing. September 2021. Webinar.
- **Analysis of PIK3CA mutations on the DNA extracted from tumor tissue.** PIK3CA testing in advanced breast cancer. 19 July 2021. Virtual Meeting
- **Low-risk triple-negative breast cancers: pathological context.** BIG-NABCG annual retreat. 2 June 2021. Virtual Meeting
- **Intraoperative consultations for sentinel lymph node.** Sentinel lymph node in Italy. 26 May 2021. Virtual Meeting
- **The importance of the “reference range” in the identification of uncommon EGFR mutations.** Project “RARE”. 7 May 2021. Virtual Meeting
- **Virtual molecular tumor board.** Mutazione PIK3CA e carcinoma mammario. 1 March 2021. Virtual Meeting

2020

- **Assessing TILs in different breast cancer subtypes.** Innovations in breast cancer therapy. 13 November 2020. University La Sapienza, Rome. Virtual Meeting
- **Confronto su vetrino virtuale: HER2.** Update sui fattori prognostici classici in patologia mammaria: confronto su vetrino virtuale 2 November 2020, Virtual Meeting
- **Biomarcatori nel carcinoma mammario e ovarico.** Corso di Master “Metodologie di anatomia patologica per lo studio dei marcatori predittivi di risposta terapeutica”, University of Naples Federico II. 10 July 2020. Virtual Meeting.
- **Breathing ideas 2.0 (Faculty).** 11-12 September 2020, Milan, Italy
- **Biomarcatori per la selezione del paziente da trattare con immunoterapia.** Corso di Master “Farmacia e Farmacologia Oncologica”, University of Milan. 2 July 2020. Virtual Meeting.
- **PD-L1 key learning in head and neck squamous cell carcinoma (Faculty).** 12 June 2020. Virtual Meeting.
- **The right biomarker for the right patient: From immunohistochemistry to predictive molecular pathology of breast cancer.** European Society of Medical Oncology (ESMO) Breast Cancer. 23 May 2020. Virtual Meeting.

2019

- **L'annoso confronto fra core biopsy e fine needle aspiration.** Patologia molecolare oncologica in radiologia interventistica. 29 November 2019, Monza, Italy
- **Integrazione tra patologo e radiologo nella diagnostica delle biopsie mammarie.** Confronto tra Patologi e Radiologi con temporanea inversione dei ruoli. 14 November 2019, Bologna, Italy.
- **Integrated analysis of mismatch repair, PD-L1, and immune microenvironment status in pregnancy-associated breast cancers.** Cancer in Pregnancy – 15 years after. 11 October 2019, Milan, Italy.
- **Interdisciplinarity in breast cancer translational research.** Università degli Studi di Pisa, PhD Week. 30 September 2019, Pisa, Italy.
- **Tecnologia applicata alla diagnosi: la profilazione biomolecolare.** E-Oncology: l'evoluzione digitale. Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Regione Lombardia e Fondazione OXIAMO Onlus. 21 June 2019, Milan, Italy (**Faculty**).
- **Determination of mismatch repair status in breast cancer and its clinical significance.** Institut Curie. 28 February 2019, Paris, France.

2018

- **Aspetti applicativi immunoistochimici in uno studio osservazionale sulla riproducibilità interpretativa: esperienze con piattaforma open.** PD-L1 nel carcinoma polmonare: un percorso guidato test in laboratorio. Università degli Studi di Milano Bicocca. 22 June 2018, Monza, Italy (**Faculty**).
- **Mesotelioma Pleurico: aspetti biologico-classificativi e nuove prospettive per l'immunoterapia.** Nemico minerale asbesto: quando la pleura si ammala. Regione Lombardia e Fondazione OXIAMO Onlus. 21 February 2018, Milan, Italy (**Faculty**).

2017

- **The clinical significance of DNA repair defects in sporadic and familial breast cancers.** Annual congress of the Italian Society of Pathology (SIAPeC), Italian Group of Breast Pathologists session, 13 October 2017, Naples, Italy
- **Metadata and research data (chair).** Open Research Data Management: policies and tools. Agency for the Promotion of European Research, 25 May 2017, Milan, Italy

- **The translational impact of molecular pathology for healthcare providers: what can we learn from breast cancer genomics?** Center for Complexity and Biosystems – University of Milan, 24 May 2017, Milan, Italy
- **Whole-genome single-cell copy number profiling from bioptic samples of advanced NSCLCs.** Canned Air event, OXIAMO Onlus, 11 May 2017, Milan, Italy

2016

- **Characterization of non-obligate precursors of invasive breast cancer.** Annual congress of the Italian Society of Pathology (SIAPeC), Italian Group of Breast Pathologists session, 24 November 2016, Genoa, Italy

2010

- **Beyond the microscope: a digital image analysis experience.** Digital virtual microscopy and analysis for pathology and pharma applications. Workshop Hamamatsu, 2010 October, Milan, Italy

Publications

Total number: 95; Total Impact Factor 421.147; Average Impact Factor 4.433; H-index 17 (Scopus) 20 (Scholar)

#corresponding author; *first, co-first, last, co-last

1. **Assessment of estrogen receptor low positive status in breast cancer: Implications for pathologists and oncologists**
Fusco N[#], Ragazzi M, Sajjadi E, Venetis K, Piciotti R, Morganti S, Santandrea G, Fanelli GN, Despini L, Invernizzi M, Cerbelli B, Scatena C, Criscitiello C
Histol Histopathol. 2021 Oct [ahead of print] I.F. **2.303**
2. **Active surveillance for prostate cancer: comparison between incidental tumors vs. tumors diagnosed at prostate biopsies**
Luzzago S, Fusco N, De Cobelli O, Musi G.
World J Urol. 2021 Oct [ahead of print] I.F. **4.226**
3. **Repeated MRIs during Active Surveillance: natural history of prostatic lesions and upgrading rates**
Luzzago S, Fusco N, De Cobelli O, Musi G.
BJU Int. 2021 Oct [ahead of print] I.F. **5.588**
4. **Commentary: Mismatch Repair Deficiency and Microsatellite Instability in Triple-Negative Breast Cancer: A Retrospective Study of 440 Patients**
Venetis K, Fusco N[#], Sajjadi E
Front Oncol. 2021 Jul [ahead of print] I.F. **6.244**
5. **Early breast cancers during pregnancy treated with breast-conserving surgery in the first trimester of gestation: a feasibility study**
Blundo C, Giroda M, Fusco N[#], Sajjadi E, Venetis K, Leonardi MC, Vicini E, Despini D, Rossi CF, Runza L, Sfondrini MS, Piciotti R, Di Loreto E, Scarfone G, Guerini Rocco E, Viale G, Veronesi P, Buonomo B, Peccatori FA, Galimberti VE
Front Oncol. 2021 Aug 24;11:723693 I.F. **6.244**
6. **ctDNA analysis in the personalized clinical management of gastroesophageal adenocarcinoma: turning hope into reality**
Salati M, Venetis K, Fassan M, Malapelle U, Pagni F, Sajjadi E, Fusco N[#], Ghidini M
Future Oncol. 2021 Jul [ahead of print] I.F. **3.404**
7. **Molecular Biomarkers in Solid Tumors**
Fusco N[#], Marchio C, Ghidini M, Scatena C
Genes. 2021 Jun 28;12(7):984 I.F. **4.096**
8. **Breast cancer with bone metastasis: molecular insights and clinical management**
Venetis K, Piciotti R, Sajjadi E, Invernizzi M, Morganti S, Criscitiello C, Fusco N[#]
Cells 2021; Jun 10(6):1377 I.F. **6.600**
9. **Immunotherapy in breast cancer patients: A focus on the use of the currently available biomarkers in oncology**
Criscitiello C, Guerini-Rocco E, Viale G, Fumagalli C, Sajjadi E, Venetis K, Piciotti R, Invernizzi M, Malapelle U, Fusco N[#]
Anti-Cancer Agents Med. Chem. 2021 [ahead of print] I.F. **2.505**
10. **Comparing prognostic utility between the 8th edition of TNM staging system and the lymph node ratio for oral squamous cell carcinoma**
Beltramini G, Belloni GA, Fusco N, Sacconi A, Muti P, Baj A, Bolzoni AR, Gianni AB
Head Neck. 2021 [ahead of print] I.F. **3.147**
11. **Mismatch repair-deficient hormone receptor-positive breast cancers: biology and pathological characterization**
Sajjadi E, Venetis K, Piciotti R, Invernizzi M, Gruerini-Rocco E, Haricharan S, Fusco N[#]
Cancer Cell Int. 2021 17;21(1):266 I.F. **4.175**
12. **Quality of life interventions in breast cancer survivors: state of the art in targeted rehabilitation strategies**
Invernizzi M, de Sire A, Venetis K, Cigna E, Carda S, Borg M, Cisari C, Fusco N^{*}
Anti-Cancer Agents Med. Chem. 2021 [ahead of print] I.F. **2.505**
13. **An EBC/plasma miRNA signature discriminates lung adenocarcinomas from pleural mesothelioma and healthy controls**
Faversani A, Favero C, Dioni L, Pesatori AC, Bollati V, Montoli M, Musso V, Terrasi A, Fusco N, Nosotti M, Vaira V, Palleschi A

Front Oncol Jun 15;11:643280 I.F. 6.244

14. **How to best exploit immunotherapeutics in advanced gastric cancer: between biomarkers and novel cell-based approaches**
Ghidini M, Petrillo A, Botticelli A, Trapani D, Parisi A, La Salvia A, Sajjadi E, Piciotti R, Fusco N, Khakoo S
J Clin Med. 2021 Apr 10, 1412 I.F. 3.303
15. **Understanding the biology of volumetric muscle loss for an individualized exercise rehabilitation approach in breast cancer patients**
Invernizzi M, Venetis K, Sajjadi E, Piciotti R, de Sire A, Fusco N[#]
Curr. Opin. Pharmacol. 2021 Jun 57:132–139 I.F. 5.547
16. **Lymphedema rehabilitation using self-adaptive inelastic compression in breast cancer: a proof-of-principle study**
de Sire A, Fusco N, Sajjadi E, Lippi L, Cisari C, Invernizzi M
Appl Sci. 2021 11(4),1901:1-8 I.F. 2.474
17. **The role of the pathologist in the next-generation era of tumor molecular characterization**
Angerilli V, Galuppini F, Pagni F, Fusco N, Malapelle U, Fassan M
Diagnostics. 2021 Feb 18;11(2):339 I.F. 3.110
18. **Rethinking the clinical management of volumetric muscle loss in patients with spinal cord injury: synergy between nutritional supplementation, pharmacotherapy, and rehabilitation**
Invernizzi M, de Sire A, Fusco N^{*}
Curr. Opin. Pharmacol. 2021 Apr 57:132-139 I.F. 5.547
19. **PIK3CA mutations as a molecular target for hormone receptor-positive, HER2-negative metastatic breast cancer**
Fusco N^{*}, Malapelle U, Fassan M, Marchiò C, Buglioni S, Zupo S, Criscitiello C, Vigneri P, Dei Tos AP, Maiorano E, Viale G
Front Oncol. 2021 Mar 25;11:644737 I.F. 4.848
20. **The Emergence of Immune-checkpoint Inhibitors in Colorectal Cancer Therapy**
Ghidini M, Fusco N, Salati M, Khakoo S, Tomasello G, Petrelli F, Trapani D
Current Drug Targets. 2021 [ahead of print] I.F. 2.632
21. **PD-L1 testing and squamous cell carcinoma of the head and neck: a multicenter study on the diagnostic reproducibility of different protocols**
Crosta S, Boldorini R, Bono F, Brambilla V, Dainese E, Fusco N^{*}, Gianatti A, L'Imperio V, Morbini P, Pagni F
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The clinical actionability of PTEN protein and gene expression analysis in HR- and HER2+ breast cancers

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ESMO Breast Cancer, 2021 May (Virtual Meeting)

Pathology after neoadjuvant treatment – how to assess residual disease

Viale G, Fusco N

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Exercise therapy to reduce breast cancer fatigue: Results from the EXPECT study

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Moukarzel LA, Ferrando L, Da Cruz Paula A, Brown D, Geyer FC, Pareja F, Piscuoglio S, Papanastasiou AD, Fusco N, Marchio M, Abu-Rustum NR, Murali R, Brogi E, Wen H, Norton L, Soslow RA, Vincent-Salomon A, Reis-Filho J, Weigelt B

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Are metaplastic breast carcinomas and uterine carcinosarcomas genetically related?

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Lymphovascular invasion and extranodal tumor extension as risk indicators of breast cancer-related lymphedema.

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ASCO Annual Meeting, 2018 June, Chicago, IL, USA**Novel driver genetic alterations in MYB-NF1B-negative breast adenoid cystic carcinomas.**

Kim J, Geyer FC, Martelotto LG, Ng CKY, Lim RS, Selenica P, Li A, Pareja F, Fusco N, Edelweiss M, Kumar R, Gularte-Merida R, Forbes AN, Khurana E, Mariani O, Badve S, Vincent-Salomon A, Norton L, Reis-Filho JS, Weigelt B.

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Invernizzi M, Fusco N, Bosari S, Cisari C, Baricich A.

International Society of Physical & Rehabilitation Medicine (ISPRM) World Congress, 2017 May, Buenos Aires, Argentina**Genomic characterization of histologically distinct components of uterine carcinosarcomas.**

Geyer F, Burke KA, Ng CK, Shen RL, Fusco N, Marchio C, Murali R, Soslow R, Reis-Filho JS, Weigelt B.

106th Annual Meeting of the United States and Canadian Academy of Pathology (USCAP), 2017 March, San Antonio, TX, USA**PTEN immunohistochemistry is a predictor of mismatch repair status in breast cancer.**

Fusco N, Gambini D, Runza L, Lopez G, Ercoli G, Despini L, Bosari S.

San Antonio Breast Cancer Symposium, 2016 December, San Antonio, TX, USA**CT-guided fine-needle aspiration biopsy of pulmonary lesions under 15 mm of diameter: results on 68 consecutive patients.**

Tosi D, Carrinola R, Palleschi A, Mendogni P, Rosso L, Righi I, Fusco N, Ferrero S, Nosotti M, Bareggi C.

Congress of the Italian Society of Medical Oncology (AIOM), 2016 October, Rome, Italy**Oral presentation: Retained PTEN expression preferentially identifies mismatch repair-proficient breast cancers.**

Fusco N, Runza L, Ercoli G, Gambini D, Blundo C, Despini L, Giroda M, Bosari S.

European Congress on Digital Pathology, 2016 May, Berlin, Germany**The role of multidisciplinary approach in a case of Langerhans cell histiocytosis with initial periodontal manifestations.**

Asa'ad F, Cisternino A, Fusco N, Ferrero S, Rasperini G.

Osteology Research Forum, 2016 April, Munich, Germany**Are there biologic relationships between pulmonary adenofibromas and breast fibroadenomas?**

Fusco N, Guerini-Rocco E, Tosi D, Maggioni M, Runza L, Augello C, Fumagalli C, Vacirca D, Ercoli G, Bosari S, Barberis M, Ferrero S.

105th Annual Meeting of the United States and Canadian Academy of Pathology (USCAP), 2016 March, Seattle, WA, USA**Distinct repertoires of somatic mutations affecting driver genes in mucinous and neuroendocrine carcinomas of the breast**

Piscuoglio S, Ng CKY, Marchio C, Eberle CA, Guerini-Rocco E, Fusco N, Mariani O, Vincent-Salomon A, Weigelt B, Reis-Filho JS.

San Antonio breast cancer symposium, 2015 December, San Antonio, TX, USA**Oral presentation: p16^{Ink4A} dichotomy in neuroendocrine and non-neuroendocrine lung tumors: a comprehensive analysis with clinicopathologic and molecular correlations**

Fusco N, Vaira V, Del Gobbo A, Guerini-Rocco E, Ercoli G, Bulfamante G, Zito Marino F, Franco R, Palleschi A, Nosotti M, Bosari S, Ferrero S.

Annual congress of the Italian Society of Pathology (SIAPeC), 2015 September, Milan, Italy**Oral presentation: Morphologic and genetic heterogeneity in mixed endometrial carcinomas**

Fusco N, Piscuoglio S, Ng CKY, Guerini-Rocco E, Favarsani A, Lim R, DeLair D, Murali R, Soslow R, Reis-Filho JS, Bosari S, Weigelt B.

Annual congress of the Italian Society of Pathology (SIAPeC), 2015 September, Milan, Italy**Oral presentation: Genetic events in the progression of adenoid cystic carcinomas of the breast to high-grade triple-negative breast cancers**

Fusco N, Martelotto LG, Ng CKY, Fuhrmann L, Cyrtta J, Guerini-Rocco E, Sakr RA, Yim E, Marchio C, Lim R, Piscuoglio S, Vincent-Salomon A, Badve S, Ichihara S, Ellis IO, Reis-Filho JS, Weigelt B.

104th Annual Meeting of the United States and Canadian Academy of Pathology (USCAP), 2015 March, Boston, MA, USA**Massively parallel sequencing analysis of acinic cell carcinoma of the breast**

Guerini-Rocco E, Hodi Z, Piscuoglio S, Ng CKY, Schultheis AM, Marchio C, De Mattos-Arruda L, Fusco N, Rakha E, Weigelt B, Ellis IO, Reis-Filho JS.

104th Annual Meeting of the United States and Canadian Academy of Pathology (USCAP), 2015 March, Boston, MA, USA**Massively parallel sequencing reveals that microglandular adenosis is a clonal neoplastic lesion of triple-negative phenotype**

Guerini-Rocco E, Piscuoglio S, Ng CKY, Akram M, Sakr RA, Fusco N, Ichihara S, Vincent-Salomon A, Ellis IO, Weigelt B, Wen YH, Schnitt S, Reis-Filho JS.

104th Annual Meeting of the United States and Canadian Academy of Pathology (USCAP), 2015 March, Boston, MA, USA**Sequencing analysis of triple negative breast carcinoma (TNBC) with a large central acellular zone (LCAZ)**

Weisman P, Brogi E, Won H, Akram M, Ng CKY, Piscuoglio S, Fusco N, Weigelt B, Reis-Filho JS, Norton L, Berger M, Wen HY.

104th Annual Meeting of the United States and Canadian Academy of Pathology (USCAP), 2015 March, Boston, MA, USA**Morphologic and genetic heterogeneity in mixed endometrial carcinomas**

Fusco N, Piscuoglio S, Ng CKY, Guerini-Rocco E, Favarsani A, Lim R, DeLair D, Murali R, Soslow R, Reis-Filho JS, Bosari S, Weigelt B.

104th Annual Meeting of the United States and Canadian Academy of Pathology (USCAP), 2015 March, Boston, MA, USA**EWS16T is a useful marker for the detection of microsatellite instability in endometrial cancer**

Piscuoglio S, Da Cruz Paula A, Smolders Y, Fusco N, Martelotto LG, De Mattos-Arruda L, Schultheis AM, Hussein Y, DeLair D, Reis-Filho JS, Weigelt B.

104th Annual Meeting of the United States and Canadian Academy of Pathology (USCAP), 2015 March, Boston, MA, USA

PRKD gene family somatic alterations in polymorphous low-grade adenocarcinomas of the salivary glands

Piscuoglio D, Weinreb I, Martelotto LG, Ng CKY, Fusco N, Rubin CP, Weigelt B, Reis-Filho JS.

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The genomic landscape of male breast cancers

Piscuoglio S, Murray M, Ng CKY, Guerini-Rocco E, Martelotto LG, Bidard FC, Eberle CA, Fusco N, Sakr RA, De Mattos-Arruda L, Lim R, Baslan T, Hicks J, King TA, Brogi E, Norton L, Weigelt B, Hudis CA, Reis-Filho JS.

San Antonio breast cancer symposium, 2014 December, San Antonio, TX, USA