

Curriculum Vitae del dott. Pesapane

Titoli di Studio e Specializzazioni

- 12/2020 **European Commission, Funding & Tender Opportunities, EU**
Expert to assist in the evaluation of grant applications, projects and tenders
- 12/2020 **MIUR Ministero dell'Istruzione dell'Università e della Ricerca, Italy**
Abilitazione scientifica nazionale a Professore di II fascia in diagnostica per immagini, radioterapia e neuroradiologia
- 12/2014 – 12/2019 **Università degli Studi di Milano, Milano, Italy**
Specializzazione in Radiologia Diagnostica ed Interventistica (70 e Lode/70)
- 06/07/2018 **General Medical Council, London, UK**
GMC reference number: 7646459
- 09/2007 - 07/2013 **Università degli Studi di Milano, Milano, Italy**
Laurea in Medicina e Chirurgia (110 e Lode/110)
- 09/2002 - 07/2007 **Collegio San Carlo, Milano, Italy**
Diploma di Liceo Scientifico (100/100)

Cariche ricoperte

- 01/2020 – Presente **Istituto Europeo di Oncologia (IEO), Milano, Italy**
Divisione di Radiologia Senologica
Ruolo: Medico Specialista Radiologo
- 01/2021 – Presente **European Radiology Experimental (ESR), Vienna, Austria**
Artificial Intelligence Section Editor
Ruolo: Editore di un peer-review Journal della Società Europea di Radiologia
- 01/2019 – 12/2019 **The Royal Marsden Hospital NHS Foundation Trust, Sutton, UK**
Radiology Unit
Ruolo: Clinical Radiologist Fellow
- 09/2018 – 12/2018 **King's College Hospital NHS Foundation Trust, Brixton, London, UK**
Urogenital Diagnostic and Interventional Radiology
Ruolo: European School of Radiology (ESOR) Fellow
- 01/2018 – 04/2018 **National Institutes of Health (NIH), Bethesda, MD, USA**
NIH Center for Interventional Oncology - Interventional Radiology Section
Ruolo: Honorary Fellow
- 07/2017 – 12/2017 **Ospedale Policlinico San Donato, San Donato Milanese, Italy**
Reperto di Radiologia
Ruolo: Specializzando in Radiologia
- 01/2017 – 06/2017 **UZ Gent Hospital, Universiteit Gent, Gent, Belgium**
Genitourinary and Breast Radiology Department
Ruolo: Honorary Fellow
- 12/2014 – 12/2016 **ASST Santi Paolo e Carlo, Ospedale San Paolo, Milano, Italy**
Reperto di Radiologia
Ruolo: Specializzando in Radiologia
- 07/2007 – 10/2014 **Croce Bianca Milano (ONLUS), Milano, Italy**
Ruolo: Milite Soccorritore certificato 118

Attività Clinica svolta allo IEO

- Attività clinica a tempo pieno nell'ambito della radiologia senologica, in particolare
 - o Diagnostica per immagini finalizzata alla prevenzione e all'identificazione precoce dei tumori della mammella attraverso le più moderne metodiche radiologiche incluse mammografia digitale con tomosintesi, ecografia e risonanza magnetica (RM)
 - o Procedure interventistiche per approfondimento di secondo livello quali prelievi citologici e microistologici radio-guidati
 - o Diagnostica per immagini delle patologie mammarie non tumorali
 - o Applicazioni delle tecnologie basate sull'Intelligenza Artificiale finalizzate all'identificazione precoce e alla caratterizzazione delle patologie oncologiche mammarie

Attività di Ricerca svolta allo IEO

- Ricercatore principale in multipli progetti sperimentali sullo sviluppo e l'applicazione di programmi di intelligenza artificiale in radiologia senologica, focalizzati allo studio del carcinoma mammario.
- Membro del gruppo di ricerca sulla radiomica applicata al carcinoma mammario.
- Membro del gruppo di studio per lo sviluppo di un protocollo sperimentale di risonanza magnetica mammaria senza mezzo di contrasto basata sulla tecnica di diffusione.
- Collaboratore in studi europei finalizzati allo studio della correlazione tra gli stili di vita e l'insorgenza di tumori alla mammella

Attività Clinica e di Ricerca svolte in precedenza

- Attività clinica radiologica nelle metodiche tradizionali con esperienza in pronto soccorso
- Attività diagnostica radiologica focalizzata nell'imaging senologico ed urogenitale
- Attività clinica e di ricerca sulla whole-body MRI e breast MRI presso il Royal Marsden Hospital (UK)
- Attività clinica e di ricerca in un centro di riferimento per la patologia testicolare pediatrica presso il King's College Hospital (UK)
- Attività di ricerca nel campo della radiologia interventistica uro-genitale presso NIH – National Institute of Health (USA) con lo sviluppo di un brevetto per facilitare la biopsia prostatica RM-guidata
- Attività di clinica e di ricerca focalizzata alla RM della prostata presso un centro di riferimento per patologia prostatica del nord Europa (Belgio).

Premi ed Onorificenze

- 2024: nominato "Paladino della Salute" presso il Campidoglio a Roma.
- 2023: inserito tra il 2% dei ricercatori più citati al mondo secondo l' "updated science-wide author databases of standardized citation indicators" della Stanford University (US).
- 2021: nominato membro del "Scientific Editorial Board" di European Radiology Experimental (European Radiology Society, Vienna, Austria)
- 2020: premiato come "Reviewer of the Year" di European Radiology (European Radiology Society, Vienna, Austria)
- 2019: primo classificato come giovane medico al concorso "La meglio Gioventù" (IEO, Milano, Italy).
- 2019: primo premio al concorso europeo Eurominnies Award come "Radiology Rising Star" (European Radiology Society, Vienna, Austria)
- 2018: selezionato tra i migliori 10 giovani ricercatori europei al "RSNA Introduction to Research for International Young Academics (IRIYA) Program" (Committee on International Radiology Education, Chicago, USA)

Pubblicazioni

- Pesapane F, Rotili A, Raimondi S, Aurilio G, Lazzeroni M, Nicosia L, Latronico A, Pizzamiglio M, Cassano E, Gandini S. Evolving paradigms in breast cancer screening: Balancing efficacy, personalization, and equity. *Cancers (Basel)*. 2024 Feb 19;16(4):837.
- Pesapane F, Tantrige P, Rotili A, Corso G, Grasso R, Pravettoni G, Gandini S, Cassano E. Disparities in Breast Cancer Diagnostics: How Radiologists Can Level the Inequalities. *Cancers (Basel)*. 2023 Dec 27;16(1):130.
- Pesapane F, Cassano E. Enhancing Breast Imaging Practices: Addressing False-Positive Findings, Personalization, and Equitable Access. *Radiology*. 2023 Dec;309(3):e232189.

- Pesapane F, Battaglia O, Pellegrino G, Mangione E, Lazzeroni M, Corso G, Fusco N, Cassano E, Advances in breast cancer risk modeling: integrating clinics, imaging, pathology and artificial intelligence for personalized risk assessment. *E. Future Oncol.* 2023 Dec;19(38):2547-2564.
- Pesapane F, Nicosia L, Cassano E. Updates on Breast Cancer. *Cancers (Basel).* 2023 Nov 13;15(22):5392.
- Pesapane F, Trentin C, Ferrari F, Signorelli G, Tantrige P, Montesano M, Cicala C, Virgoli R, D'Acquisto S, Nicosia L, Origi D, Cassano E. Deep learning performance for detection and classification of microcalcifications on mammography. *Eur Radiol Exp.* 2023 Nov 7;7(1):69.
- Pesapane F, Rotili A, Dominelli V, Cassano E. The potential role of contrast-enhanced mammography in downgrading BI-RADS 4 lesions: A balanced perspective. *Eur J Radiol.* 2023 Sep 28;168:111111
- Pesapane F, Tantrige P, De Marco P, Carriero S, Zugni F, Nicosia L, Bozzini AC, Rotili A, Latronico A, Abbate F, Origi D, Santicchia S, Petralia G, Carrafiello G, Cassano E. Advancements in Standardizing Radiological Reports: A Comprehensive Review. *Medicina (Kaunas).* 2023 Aug 25;59(9):1544.
- Pesapane F, Nicosia L, Tantrige P, Schiaffino S, Liguori A, Montesano M, Bozzini A, Rotili A, Cellina M, Orsi M, Penco S, Pizzamiglio M, Carrafiello G, Cassano E. Inter-reader agreement of breast magnetic resonance imaging and contrast-enhanced mammography in breast cancer diagnosis: a multi-reader retrospective study. *Breast Cancer Res Treat.* 2023 Dec;202(3):451-459.
- Pesapane F, Mariano L, Magnoni F, Rotili A, Pupo D, Nicosia L, Bozzini AC, Penco S, Latronico A, Pizzamiglio M, Corso G, Cassano E. Future Directions in the Assessment of Axillary Lymph Nodes in Patients with Breast Cancer. *Medicina (Kaunas).* 2023 Aug 25;59(9):1544.
- Pesapane F, Rotili A, Signorelli G, Penco S, Nicosia L, Bozzini A, Bonanni B, Cassano E. An Unenhanced Breast MRI Protocol Based on Diffusion-Weighted Imaging: A Retrospective Single-Center Study on High-Risk Population for Breast Cancer. *Diagnostics (Basel).* 2023 Jun 7;13(12):1996.
- Pesapane F, De Marco P, Rapino A, Lombardo E, Nicosia L, Tantrige P, Rotili A, Origi D, Carrafiello G, Cassano E. How Radiomics Can Improve Breast Cancer Diagnosis and Treatment. *J Clin Med.* 2023 Feb 12 (4):1372.
- Pesapane F, Anna R, Penco S, Nicosia L, Cassano E. Digital Twins in Radiology. *J Clin Med.* 2022 Nov 4;11(21):6553.
- Pesapane F, Anna R, Valconi E, Agazzi GM, Grasso R, Carrafiello G, Pravettoni G, Cassano E. Women's perceptions and attitudes to the use of AI in breast cancer screening: a survey in a cancer referral centre. *Br J Radiol.* 2022 Oct 31:20220569.
- Pesapane F, Agazzi G, Rotili A, Ferrari F, Cardillo A, Raimondi S, Bozzini A, Pizzamiglio M, Petralia G, Nicosia L, Cassano E, Prediction of the Pathological Response to Neoadjuvant Chemotherapy in Breast Cancer Patients With MRI-Radiomics: A Systematic Review and Meta-analysis. *Curr Probl Cancer* 2022 Jul 21;46(5):100883.
- Pesapane F, Rotili A, Botta F, Raimondi S, Bianchini L, Corso F, Ferrari F, Penco S, Nicosia L, Bozzini A, Pizzamiglio M, Origi D, Cremonesi M, Cassano E., Radiomics of MRI for the Prediction of the Pathological Response to Neoadjuvant Chemotherapy in Breast Cancer Patients: A Single Referral Centre Analysis. *Cancers.* 2021 Aug 25;13(17):4271.
- Pesapane F, Rotili A, Agazzi GM, Botta F, Raimondi S, Penco S, Dominelli V, Cremonesi M, Jereczek-Fossa BA, Carrafiello G, Cassano E, Recent Radiomics Advancements in Breast Cancer: Lessons and Pitfalls for the Next Future. *Curr Oncol.* 2021 Jun 25;28(4):2351-2372.
- Pesapane F, Rotili A, Penco S, Montesano M, Agazzi GM, Dominelli V, Trentin C, Pizzamiglio M, Cassano E, Inter-Reader Agreement of Diffusion-Weighted Magnetic Resonance Imaging for Breast Cancer Detection: A Multi-Reader Retrospective Study. *Cancers* 2021 Apr 20;13(8):1978.
- Pesapane F, Penco S, Rotili A, Latronico A, Pizzamiglio M, Cassano E, How we provided appropriate breast imaging practices in the epicentre of the COVID-19 outbreak in Italy. *British J Rad* 2020 Sep 2;20200679.
- Pesapane F, Downey K, Rotili A, Cassano E, Koh DM, Imaging Diagnosis of Metastatic Breast Cancer. *Insights Imaging.* 2020 Dec; 11: 79.
- Pesapane F, Leenknecht B, Ammar T, Panella S, Garzillo G, Huang DY Intraoperative Microvascular Assessment With Contrast-Enhanced Ultrasound (CEUS) During Uterine Artery Embolisation (UAE) *J Ultrasound* 2020 Mar
- Pesapane F, Suter MB, Rotili A, Penco S, Cremonesi M, Bellomi M, Jereczek-Fossa BA, Pinotti G, Cassano E. Will Traditional Biopsy Be Substituted by Radiomics and Liquid Biopsy for Breast Cancer Diagnosis and Characterisation? *Med Oncol* 37(4):29 2020 Mar 16
- Huang DY, Pesapane F, Rafailidis V, Deganello A, Sellars ME, Sidhu PS. Role of Multiparametric Ultrasound in Diagnosis of Paediatric Scrotal Pathology. *Br J Radiol.* 2020 Apr 9:20200063.
- Rotili A, Penco S, Pesapane F, Tantrige P, Cassano E, Sardanelli F. Double reading of diffusion-weighted magnetic resonance imaging for breast cancer detection. *Breast Cancer Res Treat.* 2020 Jan 14. DOI:
- Pesapane F, How scientific mobility can help current and future radiology research: a radiology trainee's perspective. *Insights Imaging.* 2019 Aug 27;10(1):85.
- Czarniecki M, Pesapane F, Wood BJ, Choyke PL, Turkbey B, Ultra-small supermagnetic iron oxide contrast agents for lymph node staging of high-risk prostate cancer. *Transl Androl Urol.* 2018 Sep 7;(Suppl 4):S453-S461
- Pesapane F, Codari M, Sardanelli F, Artificial intelligence in medical imaging: threat or opportunity? Radiologists again at the forefront of innovation in medicine. *Eur Radiol Exp.* 2018 Oct 24;2(1):35
- Pesapane F, Czarniecki M, Suter MB, Turkbey B, Villeirs G., Imaging of distant metastases of prostate cancer. *Med Oncol.* 2018 Sep 14;35(11):148
- Pesapane F, Volonté C., Codari M., Sardanelli F., Artificial intelligence as a medical device in radiology: ethical and regulatory issues in Europe and the United States. *Insights Imaging.* 2018 Oct;9(5):745-753.
- Pesapane F, Patella F., Fumarola EM., Zanchetta E., Floridi C., Carrafiello G., Standaert C. The Prostate Cancer Focal Therapy. *Gland Surgery* 2018; 7 (2), 89-102 Apr 2018
- Pesapane F, Nezami N, Patella F, Geschwind J.F. New Concepts in Embolotherapy of HCC. *Med Oncol.* 2017 Apr;34(4):58

Congressi

- Artificial Intelligence in Breast Cancer Screening; Breast Talk, November 21-22, 2024, Milan, Italy
- Contrast Media in Breast MRI; Invited Lecture; 50° Congresso SIRM 2024; Italian Radiology Congress; May 20-22, 2024; Milan, Italy
- Deep Learning-Based Tool for Detection and Discrimination of Breast Microcalcification on Mammography; Artificial Intelligence for Oncology; May 10, 2024; Milan, Italy
- How do we convert in-house AI research into a medical device; European Congress of Radiology (ECR 2024); Invited Lecture; February 28 – March 03, 2024; Vienna, Austria
- Inter-reader agreement of breast magnetic resonance imaging and contrast enhanced mammography in breast cancer diagnosis: a multi-reader retrospective study; European Society of Breast Imaging (EUSOBI) Annual Scientific Meeting 2023: Scientific Oral Presentation; September 28-30, 2023; Valencia, Spain
- Imaging and pathologic complete response after neoadjuvant therapy in breast cancer: are we ready to avoid surgery? Results from a prospective single-institution study; European Congress of Radiology (ECR 2023); Invited Lecture; March 1-5, 2023; Vienna, Austria
- Radiomics features applied to contrast enhancement spectral mammography: possibility to predict breast cancer molecular subtypes in a non-invasive manner; European Congress of Radiology (ECR 2023); March 1-5, 2023; Vienna, Austria
- Prediction of the Pathological Response to Neoadjuvant Chemotherapy in Breast Cancer Patients with MRI-Radiomics; European Congress of Radiology (ECR 2023); March 1-5, 2023; Vienna, Austria
- Breast Magnetic Resonance Imaging in High Risk Patients: Can We Use a Single Sequence To Screen?; European Congress of Radiology (ECR 2023); March 1-5, 2023; Vienna, Austria
- Gaps and need to reduce disparities in diagnosis of cancer: the role of radiologists; Beacon Cancer Care - Reducing Disparities Across the European Union Developing a Sustainability Mode; Stakeholder Meeting & Expert Panel, February 16-17, 2023; Zagreb, Croatia
- Training of Artificial Intelligence networks for identification and classification of microcalcifications in digital mammography; European Congress of Radiology (ECR 2023); July 13-17, 2022; Vienna, Austria
- Women's perceptions attitudes to the use of AI in breast cancer screening: a survey in a cancer referral center; RSNA Scientific Assembly and Annual Meeting, November 18- December 2, 2021, Chicago, IL, US
- Vacuum Assisted Biopsies and Excision of Breast Lesions; Italian Conference of Interventional Oncology (ICIO 2021); December 14-15, 2021; Milan, Italy
- Breast Implants Complications; Italian Conference of Radiology (SIRM 2021); October 28-30, 2021; Rimini, Italy
- The scholar and fellow's experience, Visiting Scholar in Europe; European Congress of Radiology (ECR 2021); March 3-7, 2021; Vienna, Austria
- How scientific mobility can help the future of Radiology research: a radiology trainee's perspective; European Congress of Radiology (ECR 2020); Invited Lecture; July 15-19, 2020; Vienna, Austria
- Analysis of the Preoperative Axillary Ultrasound in 685 Women with T1 Breast Cancer: Can We Move Away from Sentinel Lymph Node Biopsy in Women with Early Breast Cancer?; RSNA 105 Scientific Assembly and Annual Meeting, December 1-7, 2019, Chicago, IL, US
- Qualitative and Quantitative Multiparametric Ultrasound Evaluation of Focal Testicular Lesions; RSNA 105rd Scientific Assembly and Annual Meeting, December 1-7, 2019, Chicago, IL, US
- Invited Lecture as a panellist at the roundtable entitled: "Can Europe Lead in Machine Learning of MRI-data?"; ESMRMB European Society for Magnetic Resonance in Medicine and Biology Congress; October 3-5, 2019; Rotterdam, Netherlands
- Where to next? The Regulation of Radiological AI in Europe and Abroad; Panel Discussion; Artificial Intelligence Exhibition; AIX Theatre, February 27-March 3, 2019; Vienna, Austria
- The T-staging in prostate cancer: prevalence and predictive value of frequently used signs of extracapsular extension on prostate MRI; ISMRM 27th Annual Meeting & Exhibition; 11-16 May 2019; Montreal, Canada.
- Axillary ultrasound taking place of sentinel lymph node biopsy; SRI/ACR Breast Imaging Symposium 2019; April 4-7, 2019; Hollywood, Florida, US
- Screening-like single- and double-reading of DWI for breast cancer detection; Scientific Paper Session; European Congress of Radiology (ECR 2019); February 27-March 3, 2019; Vienna, Austria