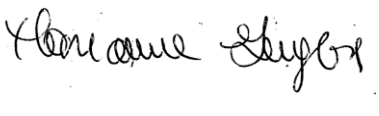
Marianna Inglese, PhD

Personal Statement

I currently hold the role of **Research Associate** in the Department of Biomedicine and Prevention, Faculty of Medicine, at the University of Rome "Tor Vergata" which starter in 2021. I also hold the role of **Honorary Research Fellow** at the Department of Surgery and Cancer, Faculty of Medicine, Imperial College London, United Kingdom, where I have worked for four years.

I received my master's degree in **Biomedical Engineering** in 2014 from the University of Rome "La Sapienza" (Italy) with a master thesis on the correction of the attenuation caused by magnetic resonance imaging radio-frequency breast coils in positron emission tomography images acquired on hybrid PET/MRI platforms. My project was carried out at the University of Western Ontario (Canada) where I have worked as a visiting research student at the Lawson Health Research Institute with Prof. Frank Prato. I received my PhD in Bioengineering in 2019 defending a thesis titled "Advanced perfusion quantification methods for **dynamic PET and MRI data modelling**" at the University of Rome "La Sapienza" under the supervision of Prof. Febo Cincotti. My thesis covered the characterization of the functional and molecular mechanisms of several different types of cancer through radioisotopic imaging in cancer (positron emission tomography imaging – PET), together with magnetic resonance imaging (MRI). During my PhD, I learnt how to quantify static PET data but also how to implement semi-quantitative (Logan/Patlak) methods together with compartmental models for the extraction of perfusion parameters from dynamic PET data. In particular, I quantified the proliferative activity of non-small cell lung cancer tissues through the analysis of static and dynamic PET data acquired with the [18F]Fluoromethyl-(1,2-2H4)- choline tracer. I exploited PET data for the evaluation of treatment response dealing with [18F]ICMT-11 PET, a caspase-3-specific PET tracer for apoptosis, on breast and lung cancer patients who received chemotherapy. Furthermore, I also examined the pharmacokinetic properties of 18F-Fluorothymidine in hepatocellular carcinoma subjects who underwent transarterial chemoembolization before and after treatment. The analysis consisted in a two-tissue compartmental model fitting for the quantification of the influx and efflux rate constants. I also evaluated the efficacy of a combined pazopanib and paclitaxel treatment in ovarian cancer patients who underwent dynamic [18F]Fluciclatide PET acquisition. Most of those projects were carried out after I won a joint research grant for PhD students mobility funded by the University of Rome La Sapienza and started her collaboration with the Imperial College London (UK) working at the Department of Surgery and Cancer, which the 2014 Research Excellence Framework evaluated as a highly contributing to world-leading, original, significant, and rigorous cancer research.

In one of my latest projects at the Imperial College, during my first post-doc, **I assessed the quantitative imaging metrics from simultaneous 18F-fluoropivalate (FPIA) PET/MRI to measure short-chain fatty acid uptake**, hemodynamics, and structure from low grade glioma, high grade glioma, and brain tumors metastasis of different origins. I am the author of 20 peer reviewed articles and 14 conference proceedings. **I am involved as investigator and/or coordinator in several national and international scientific collaborations involving Universities**, **research and healthcare institutions** (University of Rome Tor Vergata, San Raffaele Hospital (Milan), Imperial College London, UCL)**.** I won several scientific awards, including a "*Best Oral Presentation Award*" at the Italian Physical Society (SIF), "*Magna cum laude*" for her oral presentation at the International Society for Magnetic Resonance in Medicine (ISMRM), a *second-place winner* for her presentation at the Perfusion Workshop and at the PET/MRI Workshop organized by the ISMRM. I am a **team member of the following funded projects**: CROSSBRAIN (#101070908 (HORIZON-EIC-2021- PATHFINDERCHALLENGES-01-02)), PlasticsFatE (#965367 (H2020-SC1-2020-Single-Stage-RTD)), Brainstorm (#101099355 (HORIZON-EIC-2022-PATHFINDEROPEN-01)), NanoinformatiX (#814426, HORIZON – EIC – 2020). I work as a **reviewer for high impact peer-reviewed scientific journals** (Magnetic resonance medicine (MRM), Journal of Magnetic Resonance Imaging (JMRI), NRM in Biomedicine) as well as for internal scientific conferences (ISMRM, IEEE Engineering in Medicine and Biology (EMBC)). I am a member of the **editorial board** of Entropy (IF: 2.74) and of multiple scientific societies including: the Italian Physical Society (SIF), the Engineering in Medicine and Biology Society (EMBS), the Institute of Electrical and Electronics Engineers (IEEE), the Italian Association of Clinical Engineers (AIIC), the National Group of Bioengineering (GNB), the British and Irish Chapter of ISMRM, the ISMRM, the British Neuro-Oncology Society (BNOS) and of the Association of Italian Scientists in UK (AISUK).



Education

2016 - 2019 PhD Bioengineering
Title of the Thesis: Advanced perfusion quantification methods for dynamic PET and MRI data modelling
University of Rome La Sapienza, supervisor: Prof. Febo Cincotti

2016 Professional Information Engineer license

2011 - 2014 MSc Biomedical Engineering
Title of the project: Attenuation correction of MR RF coils in PET images acquired on hybrid PET/MRI platforms
University of Rome La Sapienza, supervisor: Prof. Micaela Liberti

2008 - 2011 Bachelor of Clinical Engineering
Title of the project: Analysis of spatial resolution in nuclear medicine
University of Rome La Sapienza, supervisor: Prof. Domenico Caputo

Additional Education

2021 Master Deep Learning
Deep Learning Academy – Experis s.r.l.

2018 PET Experimental Design and Practical Data Analysis St. Thomas Hospital, *King's College, London (UK)* Lecturers: Dr. Mattia Veronese, Dr. Federico Turkheimer

2017 Simultaneous PET/MR: science and practice
St. Thomas Hospital, *King's College, London (UK)*
Lecturers: Prof. Alexander Hammers, Prof. Andrew Reader

Professional Experience

2023 - Assistant Professor (Researcher Type A) – University of Rome Tor Vergata
Projects: multiparametric analysis of dynamic PET and MRI data for glioma grade classification: metabolic profiling of subjects with glioblastoma for prognosis prediction

2021 - 2023 Post-doctoral Research Fellow – University of Rome Tor Vergata
Projects: unsupervised clustering of subjects with Parkinson's disease; extraction of deep-learned patterns from dynamic PET data; tumour classification and segmentation with deep-learning architectures applied on dynamic PET time-activity curves

2021 - Honorary Research Associate – Department of Surgery and Cancer – Imperial College London (UK)

2019 - 2021 Research Associate - Imperial College London
Projects: dynamic MRI data post-processing (DCE-MRI, DWI-MRI, DSC-MRI) in brain tumours; texture and radiomic analysis of MRI data of patients with Alzheimer'sdisease; quantification and comparison of MRI and PET data acquired on hybrid PET/MRI scanner (brain lesions); dynamic PET data post-processing (registration and quantification – liver, lung, ovarian disease) and static PET analysis

2017 - 2019 Research Assistant - Imperial College London

Projects: dynamic PET data quantification (pharmacokinetic analysis) of patients with lung cancer; post-processing of DCE-MRI data of patients with brain, breast and prostate cancer

2014 - 2017 Medical Image Researcher - IRCCS SDN Naples

Projects: Post-processing of diagnostic images acquires on hybrid PET/MRI scanner (Parkinson's disease, breast and prostate cancer)

International Qualifications

2017 Visiting researcher for 6 months at the Department of Surgery and Cancer, *Imperial College London (UK)*
Supervisor: Prof. Eric Aboagye

2013 Visiting researcher for 3 months at the *University of Western Ontario, London(Canada)*
Supervisor: Prof. Frank Prato

Travel Grants

2023 Stefano Caldarelli Award – Italian Group of Discussion on Magnetic Resonance Imaging (GIDRM) – 434 €

2020 Trainee Travel Grant – International Society for Magnetic Resonance Imaging – 700 $

2018 Trainee Travel Grant – International Society for Magnetic Resonance Imaging – 525 $

2017 Joint research projects for mobility abroad for PhD students – University of Rome "La Sapienza" – 9000 €

Grants – Funded

1. Grant #814426 (HORIZON-EIC-2020)
Title: NanoinformatiX: designing nanomaterials safe for human health and the natural environment
Role: Team Member
Granting Agency: European Commission, Horizon 2020
Period of Performance: 09/01/2019 – 09/01/2023
Level of funding: € 7.751.271,25
State: ended.

2. Grant #965367 (H2020-SC1-2020-Single-Stage-RTD)
Title: PlasticsFatE: Plastics fate and effect in the human body
Role: Team Member
Granting Agency: European Commission, Horizon-SC1-2020
Period of Performance: 01/04/2021 – 01/04/2025
Level of funding: € 5.999.252,50
State: running

3. Grant #101070908 (HORIZON-EIC-2021- PATHFINDERCHALLENGES-01-02)
Title: CROSSBRAIN: Distributed and federated cross-modality actuation through advanced nanomaterials and neuromorphic learning
Role: Team Member

Granting Agency: European Commission, Horizon-EIC-2021
Period of Performance: 03/06/2022 – 02/06/2026
Level of funding: € 4.067.926,00
State: running

4. Grant #101099355 (HORIZON-EIC-2022-PATHFINDEROPEN-01)
Title: Brainstorm: Wireless deep BRAIN STimulation thrOugh engineeRed Multifunctinal nanomaterials
Role: Team member
Granting Agency: European Commission, Horizon-EIC-2022
Period of Performance: 01/04/2023 – 01/04/2026
Level of funding: € 2.999.100,00
State: running

National and International Scientific Collaborations

Topic: Improved histological glioma grading using deep learned spatiotemporal patterns extracted from dynamic multimodal data
Role: PI
Participating Institutions: University of Rome "Tor Vergata", Rome (Italy); Imperial College London, London (UK); Imperial College NHS Trust, London (UK)
Funding: NANOINFORMATIX project which has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 814426.
Conference Proceedings: Inglese M., Ferrante M., Boccato T., Islam S., Williams M., Waldman A. D., O'Neill K., Aboagye O. E., Toschi N. *Classification of low- and high-grade gliomas through multimodal temporal MRI and PET data* Italian Chapter International Society Magnetic Resonance Imaging (AIRMM). Pisa, 2022; Inglese M., Islam S., Grech-Sollars M., Anichini G., Davies J., Saleem A., William M., O'Neill K., Waldman A., Aboagye E.O. *Quantitative multiparametric ^{18}F-FPIA PET/MRI for the characterization of primary brain gliomas: a pilot study.* Proceedings of the International Society for Magnetic Resonance in Medicine 29th Annual Meeting, 2021

Topic: Subtyping Parkinson's disease patients carrying glucocerebrosidase (GBA) mutations through deep unsupervised methods
Role: PI
Participating Institutions: University of Rome "Tor Vergata", Rome (Italy); Fondazione Istituto Neurologico Casimiro Mondino, Modena (Italy); IRCCS Ospedale San Raffaele, Milan (Italy)
Funding: NANOINFORMATIX project which has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 814426.

Topic: Improving the pharmacokinetics modelling of dynamic [11C]-(R)-PK11195 PET data and applying physically informed neural network for non-invasive arterial input function estimation.
Role: PI and Scientific Collaborator
Participating Institutions: University of Rome "Tor Vergata", Rome (Italy); Martinos Center for Biomedical Imaging and Harvard Medical School, Boston, MA, USA
Funding: NANOINFORMATIX project which has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 814426.

Topic: Exploring brain molecular imaging and blood biomarkers in subjects with glucocerebrosidase mutations: toward a precision medicine approach to characterize Parkinson's disease clinical trajectories
Role: Scientific Collaborator
Participating Institutions: University of Rome "Tor Vergata", Rome (Italy); Fondazione Istituto Neurologico Casimiro Mondino, Modena (Italy); IRCCS Ospedale San Raffaele, Milan (Italy)
Funding: Ricerca Finalizzata 2021; NANOINFORMATIX project which has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 814426.

Topic: Early diagnosis of Alzheimer's disease through a radiomic analysis of T1 weighted MRI images
Role: PI
Participating Institutions: Imperial College London, London (UK); Imperial College NHS Trust, London (UK)
Funding: UK Medical Research Council Grant MR/N020782
Papers: Inglese M., Patel N., Loreto F., Grech-Sollars M., Crum B., Lu H., Malhotra E.O.P.A., Aboagye E.O. and ADNI (2022). *A predictive model using the mesoscopic architecture of the living brain to detect Alzheimer's disease.* Communications medicine, 2(1), 1-16.

Topic: Pharmacokinetic analysis of novel PET tracers
Role: Scientific Collaborator
Participating Institutions: Imperial College London, London (UK); Imperial College NHS Trust, London (UK)
Funding: UK Medical Research Council Grant MR/N020782
Papers: Li Y., Inglese M., Dubash S., Barnes C., Brickute D., Braga M.C., Wang N., Beckley A., Heinzmann K., Allott L., Lu H., Chen C., Fu R., Carroll L., Aboagye, E.O. *Consideration of Metabolite Efflux in Radiolabelled Choline Kinetics* Pharmaceutics (2021): 13, 1246; Sharma R., Inglese M., Dubash S., Lu H., Pinato D.J., Sanghera S., Patel N., Chung A., Tait P.D., Mauri F., Crum W.R., Barwick T.D., Aboagye E.O. *Monitoring response to transarterial chemoembolization in hepatocellular carcinoma using 18F-Fluorothymidine Positron Emission Tomography* Journal of Nuclear Medicine (2020): jnumed-119; Dubash S., Inglese M., Feng F., Arshad M., Barwick T., Challapalli A., Kozlowski K., Bowen F., Aboagye O.E. *Spatial heterogeneity of choline transport and metabolism in tumours of patients with non-small cell lung cancer: first-in-patient evaluation of [18F]Fluoromethyl-(1,2-2H4)-choline* Theranostics 10.19 (2020): 8677; Sharma R., Valls P. O., Inglese M., Dubash S., Chen M., Gabra H., ... & Chambers E. (2019*). [18 F] Fluciclatide PET as a biomarker of response to combination therapy of pazopanib and paclitaxel in platinum-resistant/refractory ovarian cancer.* European journal of nuclear medicine and molecular imaging, 1-13; Sharma R., Valls PO., Inglese M., Dubash SR., Chen M., Gabra H., Montes A., Challapalli A., Tharakan G., Chambers T., Cole T., Lozano-Kuehne J., Barwick T., Aboagye E. *[18F] Fluciclatide PET as a biomarker of clinical response to combination therapy of pazopanib and paclitaxel in patients with platinum-resistant or platinum-refractory advanced ovarian cancer: Results of a phase Ib study* Journal of Clinical Oncology 37 (15_suppl), 3070-3070; Dubash S. R., Merchant S., Heinzmann K., Mauri F., Lavdas I., Inglese M., ... & Thornton, A. (2018). *Clinical translation of [18 F] ICMT-11 for measuring chemotherapy-induced caspase 3/7 activation in breast and lung cancer.* European journal of nuclear medicine and molecular imaging, 45(13), 2285- 2299

Topic: Reliability of dynamic contrast-enhanced magnetic resonance imaging data in primary brain tumours
Role: PI
Participating Institutions: Imperial College London, London (UK); Imperial College NHS Trust, London (UK)
Funding: UK Medical Research Council Grant MR/N020782
Papers: Inglese M., Ordidge K. L., Honeyfield L., Barwick T. D., Aboagye E. O., Waldman A. D., & Grech-Sollars, M. (2019). *Reliability of dynamic contrast-enhanced magnetic resonance imaging data in primary brain tumours: a comparison of Tofts and shutter speed models.* Neuroradiology, *61*(12), 1375-1386; Inglese M., Honeyfield L., Aboagye E., Waldman A., & Grech-Sollars, M. (2019). *Reliability of DCE MRI data in primary brain tumours: a comparison of Tofts and Shutter Speed Models*. Neuro- oncology, *21*(Supplement_4); Grech-Sollars M., Inglese M., Ordidge K., Davies C., Vaja V., Vaqas B., Camp S., Peterson D., Honeyfield L., Khan S., O'Neill K., Roncaroli F., Aboagye E., Barwick, T., & Waldman, A. (2018). NIMG-37. *ASSOCIATION BETWEEN METABOLIC PARAMETERS FROM DYNAMIC 18FMC PET, PHARMACOKINETIC DCE-MRI PARAMETERS, MRS CHOLINE TO CREATINE RATIOS AND TISSUE IMMUNOHISTOCHEMISTRY FOR CHOLINE KINASE ALPHA EXPRESSION IN HUMAN BRAIN GLIOMA.* Neuro-Oncology, 20 (Suppl 6), vi184

Topic: Multiparametric PET/MRI study of breast and prostate cancer patients
Role: PI and Scientific Collaborator
Participating Institutions: IRCSS SDN, Naples (Italy); Imperial College London, London (UK);

Imperial College NHS Trust, London (UK)
Funding: Ricerca Corrente funding from the Italian Ministry of Health and partially by "5 per mille" IRCCS SDN grant.
Papers: Inglese M., Cavaliere C., Monti S., Forte E., Incoronato M., Nicolai E., ... & Aiello M. (2019*). A multi- parametric PET/MRI study of breast cancer: Evaluation of DCE-MRI pharmacokinetic models and correlation with diffusion and functional parameters.* NMR in Biomedicine, *32*(1), e4026; Incoronato M., Grimaldi A. M., Cavaliere C., Inglese M., Mirabelli P., Monti S., ... & Aiello, M. (2018). *Relationship between functional imaging and immunohistochemical markers and prediction of breast cancer subtype: a PET/MRI study.* European journal of nuclear medicine and molecular imaging, 45(10), 1680-1693; Aiello M., Monti S., Inglese M., Forte E., Cavaliere C., Catalano O. A., ... & Salvatore M. (2015, December). *A multi-modal fusion scheme for the enhancement of PET/MR viewing*. EJNMMI physics (Vol. 2, No. S1, p. A32). Springer International Publishing

Teaching Activity

1. University of Rome "Tor Vergata", Corso di Laurea Medicina E Chirurgia (Medicine and Surgery), Applied Physics, *Tutoring Activity* (A.A.2022-2023, Tot. number of hours: 50)

2. University of Rome "Tor Vergata", Corso di Laurea Medicina E Chirurgia (Medicine and Surgery), Applied Physics, *Cultore della materia* (A.A.2022-2023, Tot. number of hours: 50)

3. University of Rome "Tor Vergata", Corso di Laurea in Tecniche di fisiopatologia cardiocircolatoria e perfusione cardiovascolare, Bioingegneria (Modulo nell'ambito del Corso Integrato Scienze Propedeutiche), SSD: ING-IND/34, 16 h, Credits: 2 CFU (ECTS). *Professore a contratto*, (A.A.2022-2023)

4. University of Rome "Tor Vergata", Corso di Laurea in Tecniche di fisiopatologia cardiocircolatoria e perfusione cardiovascolare, Bioingegneria (Modulo nell'ambito del Corso Integrato Scienze Propedeutiche), SSD: ING-IND/34, 16 h, Credits: 2 CFU (ECTS). *Professore a contratto*, (A.A.2021-2022)

5. University of Rome "Tor Vergata", Medical Physics Specialization School, Imaging radioisotopico in medicina nucleare, SSD: FIS/07, 10 h. *Professore a contratto* (A.A.2022-2023)

Student Supervision

1. Supervisor of Master student in Tecniche di fisiopatologia cardiocircolatoria e perfusione cardiovascolare. Department of Biomedicine and Prevention. University of Rome "Tor Vergata", Rome. May 2022 – November 2022
   Title of the thesis: Energia pulsatile: impatto su tre diversi ossigenatori in uso nel nostro centro cardiochirurgico.

2. Co-supervisor for MRes student in Cancer Informatics. Department of Surgery and Cancer. Imperial College UK, London. Apr 2019 – Sep 2019
   Title of the thesis: Improving the reproducibility of dynamic PET quantification with the integration of DCE-MRIdata in brain tumours.

3. One to one teaching of software tools (Syngo.Via, GE Leonardo, in-house written software for perfusion quantification) to radiographers, radiologists and researchers. 2014-2017 IRCSS SDN Naples (Italy) and 2017 – 2021, Imperial College London (UK)

Further academic activities

1. Member of the examination board for the professional qualification exam in "Tecnico di

fisiopatologia cardiocircolatoria e perfusione cardiovascolare". Policlinico Tor Vergata, University of Rome "Tor Vergata", November 2022

2. Student volunteering at the 44th International Engineering in Medicine and Biology Conference, July 2022, Glasgow (UK)

3. Supporting the organization of the Postgraduate Symposium of the ISMRM British and Irish Chapter. London (UK), May 2018

Awards and Prizes

1. Best Oral Presentation Award. "*Spatiotemporal learning of dynamic positron emission tomography data improves diagnostic accuracy in breast cancer*" Italian Physical Society (SIF). Italy, Milan 2022

2. Magna cum laude. "*Comparison of the Tofts and the Shutter Speed Model for DCE-MRI in patients with Brain Glioma*" International Society for Magnetic Resonance in Medicine.Paris, France, 2018

3. Second Place winner. "*Association between pharmacokinetic parameters from DCE-MRI and metabolic parameters from dynamic 18F-FMC PET in human brain glioma*" PerfusionWorkshop – International Society for Magnetic Resonance in Medicine. Paris, France, 2018

4. Third Place winner. "*Association between pharmacokinetic parameters from DCE-MRI and metabolic parameters from dynamic 18F-FMC PET in human brain glioma*" PET/MRIWorkshop - International Society for Magnetic Resonance in Medicine. Paris, France, 2018

Patents

2021 Aboagye, Eric and Inglese, Marianna. DETECTION OF COGNITIVE IMPAIRMENT IN HUMAN BRAINS FROM IMAGES. WO Patent GB2021/050365.

Member of Scientific Societies

2023 – European Association of Nuclear Medicine (EANM)
2023 – Italian Association of Medical Physics (AIFM)
2022 - Italian Chapter of ISMRM
2022 - Italian Physical Society (SIF)
2022 - Engineering in Medicine and Biology Society (EMBS)
2022 - Institute of Electrical and Electronics Engineers (IEEE)
2020 - Association of Italian Scientists in UK (AISUK)
2020 - Member of the Order of Engineers
2019 - British Neuro-Oncology Society (BNOS)
2017 - British and Irish Chapter of ISMRM
2017 - International Society for Magnetic Resonance in Medicine (ISMRM)
2017 - MRI Physics Collective
2016 - Italian Association of Clinical Engineers (AIIC)

2016 - National Group of Bioengineering (GNB)

Reviewer for Peer-Reviewed Journals

1. Journal of Magnetic Resonance Imaging
2. Acta Radiologica Open
3. NMR in Biomedicine

Reviewer for international conferences

1. International Society for Magnetic Resonance in Medicine (ISMRM)
2. Engineering in Medicine and Biology (EMBC)

Editor for Peer-Reviewed Journals

Guest editor Special Issue “Application of Machine Learning in Molecular Imaging”. A special issue of Entropy (ISSN 1099-4300) which belongs to the section "Multidisciplinary Applications".

Publications: Peer-reviewed journals

(SJR: Scimago Journal Rank Indicator; JIF: Journal Impact factor (2022); N. CIT: total number of citations)

Scopus:

H index: 8
Citations: 148 (as for 22/06/2023)
ORCID: https://orcid.org/0000-0002-9154-8260

Book Chapters

Aiello M., Cavaliere C., Inglese M., Monti S., Salvatore M. *FDG-PET in dementia* in *PET-CT and PET-MRI in Neurology*. Neurology, 2016. Pp. 73-87. Springer International Publishing [Q1], JIF: 12.26; N. CIT (Scholar) = 1

Journal Publications

Inglese M., Ferrante M., Boccato T., Conti A., Pistolese C.A., Buonomo, O.C., D’Angelillo R.M., Toschi N. (2023) *Dynomics: A Novel and Promising Approach for Improved Breast Cancer Prognosis Prediction*. J. Pers. Med. 2023, 13, 1004.
SJR: Q1; TOT IF: 3.51; N. CIT (Scholar) = 0

Inglese M, Islam S, Grech-Sollars M, Aravind P, Dubash S, Barwick TD, O'Neill K, Wang J, Saleem A, O'Callaghan J, Anchini G, Williams M, Waldman A, Aboagye EO (2023). *Feasibility of [18F]fluoropivalate hybrid PET/MRI for imaging lower and higher grade glioma: a prospective first-in-patient pilot study.* European Journal of Nuclear Medicine and Molecular Imaging ;50(13):3982-3995. doi: 10.1007/s00259-023-06330-0.
SJR: Q1; TOT IF: 8.7; N. CIT (Scholar) = 0

Inglese M., Ferrante M., Duggento A., Boccato T., Toschi N. (2023) *Spatiotemporal learning of dynamic positron emission tomography data improves diagnostic accuracy in breast cancer* IEEE Transactions on Radiation and Plasma Medical Sciences, doi: 10.1109/TRPMS.2023.3268361.
SJR: Q1; TOT IF: 3.87; N. CIT (Scholar) = 0

Islam S., Inglese M., Aravind P., Barwick T., Wang J., O'Neill K., Waldman A., Williams M., Aboagye E.O. (2022) *18F-Fluoropivalate PET/MRI: imaging of treatment naïve patients and patients treated with radiosurgery* European Journal of Cancer, Volume 174, Supplement 1, Page S49
SJR: Q1; TOT IF: 9.16; N. CIT (Scholar) = 0

Inglese M., Patel N., Loreto F., Grech-Sollars M., Crum B., Lu H., Malhotra E.O.P.A., Aboagye E.O. and ADNI (2022). *A predictive model using the mesoscopic architecture of the living brain to detect Alzheimer's disease.* Communications medicine, 2(1), 1-16.
SJR: NA; TOT IF: NA; N. CIT (Scholar) = 3

Inglese M., Duggento A., Boccato T., Ferrante M., Toschi N. *Spatiotemporal learning of dynamic positron emission tomography data improves diagnostic accuracy in breast cancer* (2022) 44th Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC): 186-189
SJR: NA; JIF: 1.12; N. CIT (Scholar) = 3

Li Y., Inglese M., Dubash S., Barnes C., Brickute D., Braga M.C., Wang N., Beckley A., Heinzmann K., Allott L., Lu H., Chen C., Fu R., Carroll L., Aboagye, E.O. *Consideration of Metabolite Efflux in Radiolabelled Choline Kinetics* Pharmaceutics (2021): 13, 1246
SJR: Q1; JIF: 6.52; N. CIT (Scholar) = 2

Sharma R., Inglese M., Dubash S., Lu H., Pinato D.J., Sanghera S., Patel N., Chung A., Tait P.D., MauriF., Crum W.R., Barwick T.D., Aboagye E.O. *Monitoring response to transarterial chemoembolization in hepatocellular carcinoma using 18F-Fluorothymidine Positron Emission Tomography* Journal of Nuclear Medicine (2020): jnumed-119
SJR: Q1; JIF: 11.08; N. CIT (Scholar) = 4

Dubash S., Inglese M., Mauri F., Kozlowski K., Trivedi P., Arshad M., Challapalli A., Barwick T., Al-Nahhas A., Stanbridge R., Lewanski C., Berry M., Bowen F., Aboagye EO. *Spatial heterogeneity of radiolabeled choline positron emission tomography in tumors of patients with non-small cell lung cancer: first-in-patient evaluation of [18F]fluoromethyl-(1,2-2H4)-choline.* Theranostics. 2020 Jul 9;10(19):8677-8690. doi: 10.7150/thno.47298. PMID: 32754271; PMCID: PMC7392021.
SJR: Q1; JIF: 11.60; N. CIT (Scholar) = 7

Inglese M., Ordidge K. L., Honeyfield L., Barwick T. D., Aboagye E. O., Waldman A. D., & Grech- Sollars, M. (2019). *Reliability of dynamic contrast-enhanced magnetic resonance imaging data in primary brain tumours: a comparison of Tofts and shutter speed models.* Neuroradiology, *61*(12), 1375-1386
SJR: Q1; JIF: 2.99; N. CIT (Scholar) = 8

Inglese M., Cavaliere C., Monti S., Forte E., Incoronato M., Nicolai E., ... & Aiello M. (2019*). A multi-parametric PET/MRI study of breast cancer: Evaluation of DCE-MRI pharmacokinetic models and correlation with diffusion and functional parameters.* NMR in Biomedicine, *32*(1), e4026
SJR: Q1; JIF: 4.48; N. CIT (Scholar) = 17

Sharma R., Valls P. O., Inglese M., Dubash S., Chen M., Gabra H., ... & Chambers E. (2019*). [18 F] Fluciclatide PET as a biomarker of response to combination therapy of pazopanib and paclitaxel in platinum-resistant/refractory ovarian cancer*. European journal of nuclear medicine and molecular imaging, 1-13
SJR: Q1 JIF: 10.06; N. CIT (Scholar) = 8

Incoronato M., Grimaldi A. M., Cavaliere C., Inglese M., Mirabelli P., Monti S., ... & Aiello, M. (2018). *Relationship between functional imaging and immunohistochemical markers and prediction of breast cancer subtype: a PET/MRI study*. European journal of nuclear medicine and molecular imaging, 45(10), 1680-1693
SJR: Q1; JIF: 10.06; N. CIT (Scholar) = 28

Dubash S. R., Merchant S., Heinzmann K., Mauri F., Lavdas I., Inglese M., ... & Thornton, A. (2018). *Clinical translation of [18 F] ICMT-11 for measuring chemotherapy-induced caspase 3/7 activation inbreast and lung cancer*. European journal of nuclear medicine and molecular imaging, 45(13), 2285- 2299 SJR: Q1; JIF: 10.06; N. CIT (Scholar) = 29

Polese, B., Nicolai, E., Genovese, D., Verlezza, V., La Sala, C. N., Aiello M., Inglese M & Schiatti A. (2018*). Postprandial gastrointestinal function differs after acute administration of sourdough compared with brewer's yeast bakery products in healthy adults.* The Journal of nutrition, *148*(2), 202-208 SJR: Q1; JIF: 4.74; N. CIT (Scholar) = 21

Inglese M., Forte E., Bossone E., Spidalieri G., & Cavaliere C. (2017). *A Case Report of a MediastinalFistula with Liver Abscesses as a Complication of Aortic Valve Replacement Surgery*. Anatomy and Physiology, *7*(285), 2161-0940
SJR: NA; JIF: 5.37; N. CIT (Scholar) = 0

Forte E., Aiello M., Inglese M., Infante T., Soricelli A., Tedeschi C., ... & Cavaliere, C. (2017). *Coronary artery aneurysms detected by computed tomography coronary angiography.* European Heart Journal Cardiovascular Imaging, 18(11), 1229-1235
SJR: Q1; JIF: 9.13; N. CIT (Scholar) = 29

Forte E., Inglese M., Infante T., Schiano C., Napoli C., Soricelli A., ... & Tedeschi, C. (2016). *Anomalous left main coronary artery detected by CT angiography*. Surgical and Radiologic Anatomy, 38(8), 987-990
SJR: Q2; JIF: 1.35; N. CIT (Scholar) = 13

Aiello M., Monti S., Inglese M., Forte E., Cavaliere C., Catalano O. A., ... & Salvatore M. (2015, December). *A multi-modal fusion scheme for the enhancement of PET/MR viewing*. EJNMMI physics (Vol. 2, No. S1, p. A32). Springer International Publishing
SJR: Q1; JIF: 4.65; N. CIT (Scholar) = 2

Aiello M., Cavaliere C., Inglese M., Monti S., Salvatore M. *FDG-PET in dementia* in *PET-CT and PET-MRI in Neurology*. Neurology, 2016. Pp. 73-87. Springer International Publishing
SJR: Q1, JIF: 12.26; N. CIT (Scholar) = 1

Papers under review/in preparation

1. Ferrante M., Inglese M., Brusaferri L., Whitehead A., Loggia M., Toschi N. *Physically Informed Neural Network for Non-Invasive Arterial Input Function Estimation In Dynamic PET Imaging* (in preparation)

2. Inglese M., Ferrante M., Boccato T., Islam S., Williams M., Waldman A. D., O'Neill K., Aboagye O. E., Toschi N. *Classification of low- and high-grade gliomas through multimodal temporal MRI and PET data* (in preparation)

Invited Seminar Talks

1. "Artificial Intelligence in Healthcare"
   Hull Molecular Imaging Centres – Seminar Series. University of Hull, 2022

2. "A novel MRI biomarker for the prediction of Alzheimer's disease and its early forms"
   MRI Physics Collective, Imperial College London, 2020

3. "DCE-MRI quantification techniques in brain tumours" MRI
   Physics Collective, Imperial College London, 2018

4. "Association between pharmacokinetic parameters from DCE-MRI and metabolic parameters from dynamic 18F-FMC PET in human brain glioma"
   MRI Physics Collective, Imperial College London, 2018

5. "Reliability of DCE MRI data in primary brain tumours: a comparison of Tofts and Shutter Speed Models"
   The joint IRDB/Oncology Seminar Series, Imperial College London, 2019

6. "D4 – Choline: spectral and graphical analysis of lung cancer"
   The joint IRDB/Oncology Seminar Series, Imperial College London. 2017

Oral presentations

Inglese M., Boccato T., Ferrante M., Islam S., Williams M., Waldman A., O'Neill K., Aboagye O.E., Toschi N. *Profiling functional clusters of short chain fatty acids metabolism in primary brain gliomas for phenotype prediction* European Association of Nuclear Medicine (EANM) 2023

Ferrante M., Inglese M., Brusaferri L., Whitehead A.C., Loggia L.M., Toschi N. *Incorporating prior knowledge with physics-informed neural networks to predict arterial input functions from dynamic PET images* European Association of Nuclear Medicine (EANM) 2023

Inglese M., Ferrante M., Boccato T., Toschi N. *Dynamic ^{18}F-FLT PET radiomics: a novel and promising approach for improved breast cancer prognosis prediction* European Association of Nuclear Medicine (EANM) 2023

Caminiti S., Galli A., Sala A., Inglese M., Presotto L., Tassorelli C., Perani D., the Alzheimer's Disease Neuroimaging Initiative *Dynamic reconfiguration of metabolic brain connectivity during progression from MCI to Alzheimer's disease dementia* European Association of Nuclear Medicine (EANM) 2023

Inglese M., Ferrante M., Boccato T., Islam S., Williams M., Waldman A.D., O'Neil K., Aboagye O. E., Toschi N. *Multimodal temporal MRI and PET data analysis for the classification of low- and high-grade*

gliomas Gruppo Italiano Discussione Risonanze Magnetiche (GIDRM) 2023

Inglese M., Ferrante M., Boccato T., Islam S., Williams M., Waldman A.D., O'Neil K., Aboagye O. E., Toschi N. *Glioma Grading using Temporal Features of Multimodal Time Activity Curves in 18F-FPIA PET/MRI* Italian Association of Medical Physics (AIFM) 2023

Inglese M., Duggento A., Boccato T., Ferrante M., Toschi N. *Spatiotemporal learning of dynamic positron emission tomography data improves diagnostic accuracy in breast cancer* (2022) 44th Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC): 186-189

Ferrante M., Inglese M., Brusaferri L., Whitehead A., Loggia M., Toschi N. *Physically Informed Neural Network for Non-Invasive Arterial Input Function Estimation In Dynamic PET Imaging* Medical Imaging with Deep Learning (MIDL) 2022

Inglese M., Duggento A., Boccato T., Toschi N. *Spatiotemporal learning of dynamic positron emission tomography data improves diagnostic accuracy in breast cancer* 2022 9th Conference on PET/MR and SPECT/MR & Total-body PET workshop (PSMR-TBP) 2022

Inglese M., Duggento A., Boccato T., Toschi N. *Spatiotemporal learning of dynamic positron emission tomography data improves diagnostic accuracy in breast cancer* Società Italiana di Fisica Medica 2022

Inglese M., Duggento A., Boccato T., Toschi N. *Spatiotemporal learning of dynamic positron emission tomography data improves diagnostic accuracy in breast cancer* 21st International Conference of the Italian Association for Artificial Intelligence - HC@AIxIA Workshop 2022

Inglese M., Honeyfield L., Aboagye E., Waldman A., & Grech-Sollars, M. *Reliability of DCE MRI data in primary brain tumours: a comparison of Tofts and Shutter Speed Models* British Neuro-oncology Society (BNOS) 2019 published in Neuro-oncology, *21*(Supplement_4). 2019

Inglese M, Honeyfield L, Aboagye E, Waldman AD, Grech-Sollars M. *Comparison of the Tofts and the Shutter Speed Model for DCE-MRI in patients with Brain Glioma.* International Society for Magnetic Resonance in Medicine 26th Annual Meeting & Exhibition,Paris, France. 2018

Inglese M, Grech-Sollars M, Ordidge K, Vaja V, Honeyfield L, Khan S, Barwick T, Aboagye E, Waldman AD. *Association between pharmacokinetic parameters from DCE-MRI and metabolic parameters from dynamic 18F-fluoromethylcholine PET in human brain glioma*. PET/MRI Study Group - International Society for Magnetic Resonance in Medicine 26th Annual Meeting & Exhibition,Paris, France. 2018

Inglese M, Grech-Sollars M, Ordidge K, Vaja V, Honeyfield L, Khan S, Barwick T, Aboagye E, Waldman AD. *Association between pharmacokinetic parameters from DCE-MRI and metabolic parameters from dynamic 18F-fluoromethylcholine PET in human brain glioma*. Perfusion Workshop - International Society for Magnetic Resonance in Medicine 26th Annual Meeting & Exhibition, Paris,France. 2018

Inglese M, Grech-Sollars M, Ordidge K, Davies C, Vaja V, Vaqas B, Camp S, Peterson D, HoneyfieldL, Khan S, O'Neill K, Roncaroli F, Aboagye E, Barwick T, Waldman AD. *Association between metabolic parameters from dynamic 18F-fluoromethylcholine PET, pharmacokinetic parameters from DCE-MRI, choline to creatine ratios from MRS and tissue immunohistochemistry for choline kinase alpha expression in human brain glioma.* British Neuro-Oncology Society Conference, Winchester, UK. Published in Neuro-Oncology, Volume 20, Issue suppl_5. 2018.

Inglese M, Honeyfield L, Aboagye E, Waldman AD, Grech-Sollars M. *Comparison of the Tofts and the Shutter Speed Model for DCE-MRI in patients with Brain Glioma.* British Chapter of ISMRM 26th Postgraduate Symposium, London, UK. 2018.

Monti S., Aiello M., Inglese M., Diomaiuti C. T., Ragozzino A., & Cavaliere C. (2018, January). *Multiparametric MRI in prostate cancer: a radiomic study on different diffusion and perfusion models.* European Congress of Radiology 2018.

Poster presentations

Inglese M., Ferrante M., Boccato T., Islam S., Williams M., Waldman A. D., O'Neill K., Aboagye O. E., Toschi N. *Classification of low- and high-grade gliomas through multimodal dynamic MRI and PET data* International Society for Magnetic Resonance in Medicine (ISMRM) 31st Annual Meeting, 2023.

Inglese M., Ferrante M., Boccato T., Islam S., Williams M., Waldman A. D., O'Neill K., Aboagye O. E., Toschi N. *Classification of low- and high-grade gliomas through multimodal temporal MRI and PET data* Italian Chapter International Society Magnetic Resonance Imaging (AIRMM). Pisa, 2022

Ferrante M., Inglese M., Boccato T., Toschi N. *BayesNetCNN: incorporating uncertainty in neural networks for image-based classification tasks* Italian Chapter International Society Magnetic Resonance Imaging (AIRMM). Pisa, 2022

Inglese M., Islam S., Grech-Sollars M., Anichini G., Davies J., Saleem A., William M., O'Neill K., Waldman A., Aboagye E.O. *Quantitative multiparametric ^{18}F-FPIA PET/MRI for the characterizationof primary brain gliomas: a pilot study.* International Society for MagneticResonance in Medicine (ISMRM) 29th Annual Meeting, 2021.

Inglese M., Lu H., Grech-Sollars M., Aboagye EO. *A novel MRI biomarker for the characterization ofearly and later forms of Alzheimer's disease.* International Society for Magnetic Resonance in Medicine 28th Annual Meeting & Exhibition, Sydney, Australia. 2020.

Kukran S., Inglese M., Ordidge K.L., Davies C., Honeyfield L., Vaqas B., Camp S., Peterson D., O'NeillK., Limback Stanic C., Barwick T., Waldman A.D., Grech-Sollars M. *Do targeted biopsies improve the correlation between ADC and cellularity in patients with glioma?* International Society for Magnetic Resonance in Medicine 28th Annual Meeting & Exhibition, Sydney, Australia. 2020.

Inglese M, Grech-Sollars M, Ordidge K, Vaja V, Honeyfield L, Khan S, Barwick T, Aboagye E, Waldman AD. *Association between pharmacokinetic parameters from DCE-MRI and metabolic parameters from dynamic 18F-fluoromethylcholine PET in human brain glioma*. International Society for Magnetic Resonance in Medicine 26th Annual Meeting & Exhibition, Paris, France. 2018

Inglese M, Grech-Sollars M, Ordidge K, Vaja V, Honeyfield L, Khan S, Barwick T, Aboagye E, Waldman AD. *Association between pharmacokinetic parameters from DCE-MRI and metabolic parameters from dynamic 18F-fluoromethylcholine PET in human brain glioma*. British Chapter of ISMRM 26th Postgraduate Symposium, London, UK. 2018.