



Title & full name: Monica Casanova Martins

Qualifications: BSc Honours in Nuclear Medicine; MSc in Biomaterials and Biomedical Devices; Clinical Scientist in Imaging with Ionizing Radiation

Current Role: Clinical Team Lead in Nuclear Medicine Imaging and DXA

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Brief Biography (approx. 200 words)

I originally went through BSc Honours training in Nuclear Medicine at university in Portugal with the Superior Institute of Healthcare Technologies of Porto. Began my clinical practice as Nuclear Medicine technologist in 2002 at Santo Antonio General Hospital in Porto and moved to Coimbra, to the University Hospitals of Coimbra in 2005. In 2007, I also started working on a part-time basis at Diaton S.A., a private clinic providing Nuclear Medicine imaging services in several sites of the country (including Coimbra and Viseu, where I was assigned to work most frequently), in parallel with my full time job at the University Hospitals in Coimbra. Working in these positions provided me with extensive experience in imaging, image processing, radiopharmaceutical production, and quality control, administration of radiopharmaceuticals (including paediatrics) for diagnostics and therapy, and clinical research. All throughout my clinical career, I have coupled my clinical practice with providing support to national BSc Honours Nuclear Medicine training providers (Superior Institute of Healthcare Technologies in Porto and Superior Institute of Healthcare Technologies in Lisbon), either by lecturing (between 2003 and 2009) or by mentoring students during their clinical placements in hospitals (between 2002 and 2013). I also went through Masters training with the University of Aveiro, whilst developing the full-time, part-time and lecturing/mentoring jobs mentioned above. Moved to Wales in 2013 for a position as Chief Technologist in imaging at Singleton Hospital/Swansea Nuclear Medicine Department and soon after, in October 2015 got promoted to Clinical Team Lead in Imaging and DXA and maintained my mentoring and lecturing activities now providing support to Swansea University's PTP Course in Nuclear Medicine.

External Memberships (e.g. BNMSRTNG) Associate Lectureships/Contributions

I am a member of:

Portuguese Society of Nuclear Medicine since 2005

BNMS since 2014

IPEM since 2015

National Osteoporosis Society (NOS) since 2016

Welsh Osteoporosis Advisory Group (WOAG) since 2016

Honorary Clinical Research Fellow with Swansea University school of Medicine since 2016

BNMS RTNG since 2018

Honorary Lecturer with Swansea University school of Healthcare Science since 2018

HCPC since January 2020

Areas of expertise, research interests etc...

Alongside my full-time job at Singleton Hospital, I am currently a part-time PhD student at Swansea University with a special interest in Nuclear Cardiology. My project is entitled "Evaluation of the utility and optimisation of Myocardial Perfusion Imaging" and involves the creation of a large database including data from several sources including Myocardial Perfusion Scintigraphy (MPS) scans (raw data), reports and stress tests and its linkage with SAIL, another large database containing GP data from the Welsh population. This linkage will potentially allow a better understanding of the clinical utility of MPS scanning in a modern health economy aiming to inform on a prudent role for use of this method of investigating myocardial ischaemia. My work also involves the development of a tool based on Natural Language Processing methods that, when validated, will allow extracting quantifiable information from documents containing unstructured data (like reports) onto structured files which can be analysed. Such a tool has the potential to not only be used in other institutions but also provide useful insights and application to other (cardiac and non-cardiac) imaging reports such as echocardiography, angiography, and cross-sectional imaging. This project also aims to participate in a multicentre collaboration with Cedars-Sinai in the US, in which case, our QGS/QPS dataset may contribute to important advances in the diagnostic and prognostic performance of MPS in the investigation of coronary disease.

Conference/ publications (last 5 years only)

All throughout my career, I have lectured and presented papers at local, national and international conferences and courses during the years on conventional nuclear medicine and PET/CT, including at the BNMS (British Nuclear Medicine Society) and EANM (European Association of Nuclear Medicine) annual conferences. I was also awarded second best oral communication at the EANM'14 conference with a paper entitled "Is it possible to use Teflon cannulae for radionuclide equilibrium angiography?". My Master's thesis was entitled "Breast cancer metabolism: in vivo and in vitro uptake studies with ¹⁸F-FDG". This project was awarded best oral communication at the national Portuguese Society of Nuclear Medicine (SPMN) conference in November 2011. Most recently, I have published an article, entitled "Breast Cancer Metabolism: In vitro uptake studies with ¹⁸F-FDG" which is freely available online. My most recent presentation was a contribution to the Welsh Osteoporosis Advisory Group meeting in September 2019 entitled "Vertebral Fractures: What to Expect from DXA".