

# MARINOS G. METAXAS

## PERSONAL INFORMATION

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- Marital status: **Married**
- Nationality: **Greek (EU) – Military Service Completed**
- Date of Birth: **27<sup>th</sup> Jan. 1970**
- Place of Birth: **Athens, Greece**

## EDUCATION

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**2000 - 2005** University College London, London UK

### **PhD in Medical Physics**

**Title:** Source Localisation and Dose Verification for X-Ray Intra-Operative Radiotherapy

**1993 - 1995** University of Surrey, Guildford, UK

### **MSc in Medical Physics**

**1990-1993** Imperial College, Institute of Science, Technology and Medicine, London, UK

### **BSc in Physics (Hons)**

## PROFESSIONAL EXPERIENCE

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**2018 to date** Biomedical Research Foundation of the Academy of Athens  
Nuclear Medicine Division, *PET-CT* Centre of Clinical,  
Experimental Surgery and Translational Research  
Staff Research Scientist Ass. Prof Level  
Radiation Protection Officer (RPO)

**2011 to 2018** Biomedical Research Foundation of the Academy of Athens  
Nuclear Medicine Division, *PET-CT* Centre of Clinical,  
Experimental Surgery and Translational Research  
Radiation Protection Officer (RPO)

**2007-2010**     **University College London Hospitals NHS Trust**  
**Radiotherapy Physics Group**  
**Department of Oncology**  
**Band 7 Radiotherapy Physicist (HPC reg. 2009)**

**2004-2007** **University College London, Dept of Medical Physics and**  
**Bioengineering**  
**Post-Doctoral Research Fellow:**

- I-Imas (Intelligent Imaging sensor in Medicine) European Project FP6

**2000-2007** **University College London Hospitals NHS Trust**  
**Clinical Scientist**

Radiotherapy Department  
Meyerstein Cancer Institute  
Middlesex Hospital, London, UK

- Radiotherapy Physicist employed for TARGIT trial implementation

**1999-2000**     **PhotoElectron (Europe) Corporation, London - UK**

- Clinical Scientist. Participated in the feasibility studies carried out at **the Middlesex Hospital, London, UK** ahead of the randomisation phase of the TARGIT trial.

**1997-1999**     **PhotoElectron Corporation (PeC), Lexington, MA, USA**

- Worked as a radiation physicist employed by PeC to provide physics support in the interstitial irradiation of solid metastatic brain tumours (stereotactic radiosurgery) at the **Massachusetts General Hospital (MGH), Boston MA, USA**

## PROFESSIONAL BODIES MEMBERSHIP AND ACADEMIC POSTS:

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**Medical Physics Expert (MPE): Α.Π. ΑΝΑΓΝ/432/99/2020 ΕΕΑΕ**

**Εμπειρογνώμων Φυσικός Ιατρικής - Ακτινοφυσικός**

**Key Opinion Leader (KOL)** for Carl Zeiss Intrabeam System for issues concerning Dosimetry, QA and Clinical Applications for the European Region **2012 -**

Hellenic Permit to work as **Medical Physicist 2011**

Health Professions Council registered (**Reg No: CS17641**) **2009**

**Association of Clinical Scientists Certificate of Attainment (ACS:1478) 2008**

Corporate Member of the **Institute of Physicists and Engineers in Medicine (MIPEM No: 2472 ) 2008**

**Certified Scientist (CSci) Certificate of Attainment (IPEM/108/002472) 2008**

Honorary Senior Lecturer, Research Department of Surgical Oncology, UCL. London **2007-2018**

Chairman of the International **TARGIT Physics Group 2002 - 2015**

Member of the **TARGIT International Steering Committee 2002 - 2015**

(**TARGIT**: Targeted Intra-Operative Radiotherapy) International Breast Cancer Randomised trial

## PUBLICATIONS

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**2021 A few-shot U-Net deep learning model for lung cancer detection via PET/CT imaging. Biomedical Physics & Engineering Express (BPEX-102617) (under review)** Nicholas E. Protonotarios, Iason Katsamenis, Stavros Sykiotis, Nikolaos Dikaos, George A. Kastis, Sofia N.Chatziioannou, Marinos Metaxas, Nikolaos Doulamis and Anastasios Doulamis. **IMPACT FACTOR 1.6**

**2020 Human white-fat thermogenesis: Experimental and meta-analytic findings Temperature doi.org/10.1080/23328940.2020.1769530** Petros C. Dinas , Argyro Krase , Eleni Nintou , Alexandros Georgakopoulos ,Marnie Granzotto , **Marinos Metaxas** , Elena Karachaliou , Marco Rossato ,Roberto Vettor , Panagiotis Georgoulas , Tiago S. Mayor , John Koutsikos ,Konstantinos Athanasiou , Leonidas G. Ioannou , Paraskevi Gkiata , AndresE. Carrillo , Yiannis Koutedakis , George S. Metsios , Athanasios Z. Jamurtas ,Sofia Chatziioannou & Andreas D. Flouris **IMPACT FACTOR 3,2**

**2019 Adjustment of vascular 2-deoxy-2-[ <sup>18</sup> F]fluoro-D-glucose uptake values over time through a modeling approach** Int J Cardiovasc Imaging 2019 May;35(5):955-964. \_\_Pavlos P Kafouris <sup>1,2</sup>, Iosif P Koutagiar <sup>3</sup>, Alexandros T Georgakopoulos <sup>2</sup>, Nikoletta K Pianou <sup>2</sup>, **Marinos G Metaxas** <sup>2</sup>, George M Spyrou <sup>4</sup>, Constantinos D Anagnostopoulos <sup>5</sup> **IMPACT FACTOR 2.4**

**2018 Inhibition of Aortic Valve Calcification by Local Delivery of Zoledronic Acid-an Experimental Study J Cardiovasc Transl Res. 2018 Jun;11(3):192-200** Synetos A, Toutouzas K, Drakopoulou M, Koutagiar I, Benetos G, Kotronias R, Anousakis-Vlachochristou N, Latsios G, Karanasos A, Agrogiannis G, **Metaxas M**, Stathogiannis K, Papanikolaou A, Georgakopoulos A, Pianou N, Tsiamis E, Patsouris E, Papalois A, Cokkinos D, Anagnostopoulos C, Tousoulis D **IMPACT FACTOR 4,2**

**2017: <sup>18</sup>F-FDG PET/CT imaging detects aortic wall inflammation in patients with repaired coarctation of aorta Circulation:Cardiac Imaging** Stella Brili MD, Evangelos Oikonomou MD PhD, Alexios S. Antonopoulos MD PhD, Nikoletta Pianou MD, Alexandros Georgakopoulos MD, Iosif Koutagiar MD, Pavlos Kafouris BSc, Evangelia Stroumpouli MDe Christos Dounis MD, **Marinos Metaxas PhD**, George Spyrou PhD,

Constantinos D. Anagnostopoulos MDPHd, FRCP, FRCR, FESC, Dimitris Tousoulis MD PhD FESC **IMPACT FACTOR 7,8**

**2017:** Vascular inflammation and metabolic activity in hematopoietic organs and liver in familial combined hyperlipidemia and heterozygous familial hypercholesterolemia **J Clin Lipidol.** 2018 Jan - Feb;12(1):33-43. Toutouzas I , Skoumas , Koutagiar , Benetos , Pianou , Georgakopoulos A, Galanakis, Antonopoulos, Drakopoulou, Oikonomou, Kafouris P, Athanasiadis E, Metaxas M, Spyrou G, Pallantza Z, Galiatsatos N, Aggeli C, Antoniadis C, Keramida G, Peters AM, Anagnostopoulos CD, Tousoulis D. **IMPACT FACTOR 48.**

**2013:** Updated results of local control and first analysis of survival from the randomized trial of risk-adapted TARGETed Intraoperative radiotherapy (TARGIT-A) for early breast cancer. **The Lancet** 11/2013; DOI:10.1016/S0140-6736(13)61950-9. Vaidya JS, Joseph DJ, Tobias JS, Bulsara M, Wenz F, Saunders C, Alvarado M, Flyger HL, Massarut S, Eiermann W, Keshtgar M, Dewar J, Kraus-Tiefenbacher U, Sütterlin M, Esserman L, Holtveg HM, Roncadin M, Pigorsch S, Metaxas M, Falzon M, Matthews A, Corica T, Williams NR, Baum M **IMPACT FACTOR 48**

**2011:** Targeted Intra Operative Radiotherapy for breast cancer in patients in whom external beam is not possible. **Int J Radiat Oncol Biol Phys.** 2011 May 1;80(1):31-8. doi: 10.1016 /Keshtgar MR, Vaidya JS, Tobias JS, Wenz F, Joseph D, Stacey C, Metaxas MG, Keller A, Corica T, Williams NR, Baum M. **IMPACT FACTOR 4.1**

**2010:** Targeted Intra Operative Radiotherapy versus whole breast radiotherapy for breast cancer (TARGIT-A trial): an international, prospective, randomised, non-inferiority phase 3 trial. **The Lancet**, 2010 Jul 10;376(9735):90. Vaidya JS, Joseph DJ, Tobias JS, Bulsara M, Wenz F, Saunders C, Alvarado M, Flyger HL, Massarut S, Eiermann W, Keshtgar M, Dewar J, Kraus-Tiefenbacher U, Sütterlin M, Esserman L, Holtveg HM, Roncadin M, Pigorsch S, Metaxas M, Falzon M, Matthews A, Corica T, Williams NR, Baum M **IMPACT FACTOR 48**

**2008:** Breast Cancer patients treated with intra-operative radiotherapy (IORT) alone when conventional external beam radiation therapy (EBRT) was not possible. **J. Clin Oncology** 26:11517 Keshtgar M, Tobias JS, Vaidya JS, Williams N, Stacey C, Metaxas M, Douek M, Brew-Graves C, Baum M **IMPACT FACTOR 25**

**2008:** Design and Characterisation of the I-Imas multi element X-Ray detector system 'The I-ImaS System'. **IEEE Transactions in Nuclear Science** 14: 245-53, C.J. Esbrand, C.D. Arvanitis, S. Pani, B.D. Price, J.A. Griffiths, M. Metaxas, G.J. Royle, M. Noy, J. Leaver, R. Longo, T. Rokvic, R. Turchetta, H. Georgiou, H. Schulerud, R.D. Speller **IMPACT FACTOR 1.5**

**2008:** Preliminary images from an adaptive imaging system. **Physica Medica** 10.1016. Griffiths JA, Metaxas MG, Pani S, Schulerud H, Esbrand C, Royle GJ, Price B, Rokvic T, Longo R, Asimidis A, Bletsas E, Cavouras D, Fant A, Gasiorek P, Georgiou H, Hall G, Jones J, Leaver J, Li G, Machin D, Manthos N, Matheson J, Noy M, Ostby JM, Psomadellis F, van der Stelt PF, Theodoridis S, Triantis F, Turchetta R, Venanzi C, Speller RD. **IMPACT FACTOR 2.0**

**2007:** I-IMAS: A 1.5D sensor for high-resolution scanning. **Nuclear Instruments and methods in Physics research** Section A: Volume 582, Issue 3. 1 December 2007, Pages 866–870 R. Turchetta, A. Fant, P. Gasiorek, C. Esbrand, J.A. Griffiths, M.G. Metaxas, G.J. Royle, R. Speller, C. Venanzi, P.F. van der Stelt, H. Verheij, G. Li, S. Theodoridis, H. Georgiou, D. Cavouras, G. Hall, M. Noy, J. Jones, J. Leaver, D. Machin, S. Greenwood, M. Khaleeq, H. Schulerud, J.M. Østby, F. Triantis, A. Asimidis, D. Bolanakis, N. Manthos, R. Longo, A. Bergamaschi . **IMPACT FACTOR 1.5**

**2007:** CMOS Monolithic Active Pixel Sensors (MAPS). Developments and future outlook. **Nuclear Instruments and methods in Physics research** Section A: Volume 582, Issue 3, 1 December 2007, Pages 866–870. R. Turchetta, A. Fant, P. Gasiorek, C. Esbrand, J.A. Griffiths, M.G. Metaxas, G.J. Royle, R. Speller, C. Venanzi, P.F. van der Stelt, H. Verheij, G. Li, S. Theodoridis, H. Georgiou, D. Cavouras, G. Hall, M. Noy, J. Jones, J. Leaver, D. Machin, S. Greenwood, M. Khaleeq, H. Schulerud, J.M. Østby, F. Triantis, A. Asimidis, D. Bolanakis, N. Manthos, R. Longo, A. Bergamaschi . **IMPACT FACTOR 1.5**

**2007:** Adaptive Image content-based exposure control for scanning applications in radiography' **Springer Lecture Notes in Computer Science**, 4678/2007, 543-52, H. Schulerud, J. Thielemann, T. Kirkhus, K. Kaspersen, J.M. Østby, M.G. Metaxas, G. J. Royle, J. A. Griffiths **IMPACT FACTOR 4.2**

**2006:** Breast-conserving Surgery with Intra-operative Radiotherapy: The Right Approach for the 21st Century?. **J Clinical Oncology** 18:3, 220-228, (2006). S. Tobias, J.S. Vaidya, M. Keshtgar, M. Douek, M. Metaxas, C. Stacey, R. Sainsbury, D. **IMPACT FACTOR 24.8**

**2001:** Targeted intra-operative radiotherapy (TARGIT): An innovative method of treatment for early breast cancer. **Annals of Oncology** 12:1075-1083. Vaidya JS, Baum M, Tobias JS, D'Souza DP, Naidu SV, Morgan S, Metaxas M, Harte KJ, Sliski AP, Thomson E. **IMPACT FACTOR 11.9**

## CONFERENCE ABSTRACTS

**2021: Meningiomas as Incidentalomas Visualized on 68Ga-DOTATOC-PET/CT** E. Alevroudis, T. Liotsou, M. Metaxas, M. Tsoli, E. Anagnostou, G. Kaltsas, S. N. Chatziioannou *Annual Congress of the European Association of Nuclear medicine, October 20-23 2021, Virtual (oral presentation)*

**2021: The effectiveness of the combination of extended fasting with dietary manipulation for suppressing physiologic myocardial 18-FDG uptake in patients undergoing PET for sarcoidosis.** A Georgakopoulos, E. Manali, A. Papaioannou, H. Gialafos, M. Metaxas, I. Kolilekas, S. Papiris, S. Chatziioannou *Association of Nuclear medicine, October 20-23 2021, Virtual (poster presentation)*

**2021: Association of arterial inflammation as assessed by 18FDG-PET/CT and chemotherapy, in patients with lymphoma** E. Solomou, N. Ioakimidis, D. Terentes-Printzios, I. Koutagiar, P. Kafouris, A. Pouli, A. Sioni, S. Giannouli, V. Gardikioti, M. Metaxas, G. Kalikakis, D. Tousoulis, K. Tsioufis, C. Anagnostopoulos, C. Vlachopoulos *ESC Congress 2021 – The Digital Experience 27–30 August 2021 (oral presentation)*

**2019 Thermogenic Capacity of Human White-Fat: The Actual Picture**<sup>†</sup> Petros C. Dinas, Argyro Krase, Eleni Nintou, Alexandros Georgakopoulos, Marnie Granzotto, **Marinos Metaxas**, Eleni Karachaliou, Marco Rossato, Roberto Vettor, Panagiotis Georgoulis, Athanasios Z. Jamurtas, John Koutsikos, Konstantinos Athanasiou, Leonidas G. Ioannou, Paraskevi Gkiata, Andres E. Carrillo, Yiannis Koutedakis, George S. Metsios, Tiago S. Mayor, Sofia Chatziioannou and Andreas D. Flouris *The 9th Conference of Biochemistry and Physiology of Exercise 18-20 October 2019 Thessaloniki GREECE*

**2016: Administered dose optimization aiming for constant image quality in 3D 18F-FDG whole body PET/CT studies: Clinical implementation of the quadratic relation between dose and patient's body mass on two systems** M. Kotzarslidou, **M. Metaxas**, A. Georgakopoulos, A. Pashali, N. Pianou, S. Chatziioannou, V. Chatzipavlidou *Annual Congress of the European Association of Nuclear medicine, October 15-19 2016, Barcelona, Spain (e-poster)*

**2016: Higher arterial wall inflammation in familial combined hyperlipidemia (FCH) compared to heterozygous familial hypercholesterolemia (hFH): insights from a pilot <sup>18</sup>F-FDG PET/CT study** Nikoletta Pianou, Konstantinos Toutouzas Iosif Koutagiar, Alexandros Georgakopoulos, J. Skoumas, Georgios Benetos, Pavlos Kafouris, Spyros Galanakis, **Marinos Metaxas**, A. Rigatou, George Spyrou, A.M. Peters, Dimitrios Tousoulis, Constantinos D Anagnostopoulos *Annual Congress of the European Association of Nuclear medicine, October 15-19 2016, Barcelona, Spain (oral presentation)*

**2016: Morphological and functional characteristics of the carotid plaques are not correlated: insights from positron emission tomography and microwave radiometry** I. Koutagiar, K. Toutouzas, G. Benetos, N. Pianou, A. Georgakopoulos, E. Athanasiadis, S. Galanakis, **M. Metaxas**, G. Spyrou, P. Kafouris, D. Kokkinos, D. Tousoulis, CD. Anagnostopoulos. *European Society of Cardiology (ESC) Congress 2016, 27-31 August, Rome, Italy (oral presentation)*

**2016: Increased arterial inflammation assessed by positron emission tomography is associated with higher thermal heterogeneity and macrophage infiltration in carotid plaques** G. Benetos, K. Toutouzas, I. Koutagiar, A. Georgakopoulos, N. Pianou, **M. Metaxas**, G. Agrogiannis, E. Athanasiadis, G. Spyrou, K. Fillis, E. Siores, E. Patsouris, D. Kokkinos, D. Tousoulis, CD. Anagnostopoulos *European Society of Cardiology (ESC) Congress 2016, 27-31 August, Rome, Italy (oral presentation)*

**2008: The role of the radiotherapy physicist in the clinical implementation of the Intrabeam system for intraoperative radiotherapy** Stacey C and **Metaxas M.** *AAPM Proceedings 2008 (oral presentation)*

**2006: Use of intra-operative radiotherapy (IORT) alone in breast cancer patients** *ESSO Proceeding (oral presentation)s*

**2004: Source Location and Dose Verification for x-ray Intra-Operative Radiotherapy (IORT).** *IEEE MIC Proceedings 2004.* **Metaxas M.** Speller R., Royle G., Seco J. *(oral presentation)*

