# Dr Malgorzata Wamil MD, MSc, PhD, MRCP, FESC

Assistant Professor and Consultant Cardiologist specialising in non-invasive cardiovascular imaging (cardiac MRI, CT and echocardiography), heart failure and inherited cardiomyopathies and clinician scientist at the University of Oxford; trained in medicine and cardiology at the Oxford University Hospitals, completed MSc in Research and British Heart Foundation PhD in Cardiovascular Science at the University of Edinburgh; further post-doctoral research fellowship in Cardiovascular Imaging at the Oxford University, a clinical post-CCT fellowship in Heart Failure/ICC and MSc in Clinical Trials sponsored by European Society of Cardiology at the University of Oxford. Research experience spans basic science and drug development projects, translational clinical studies, and randomised controlled trials.



#### **Education/Qualifications**

Education/Qualifications		
2022-2024	University of Oxford, MSc in Clinical Trials, funded by European Society of Cardiology grant	
2021	Oxford Executive Leadership Certificate, Said Business School, University of Oxford	
2018	SCMR and EACVI level 3 accreditation in CMR	
2017	Dual CCT in Cardiology and General Medicine, Oxford University Hospitals	
2017, 2021	SCCT Cardiac CT accreditation	
2017, 2023	EACVI Cardiac MRI level 3 accreditation	
2016, 2023	Transoesophageal Echo European Society of Cardiology accreditation	
2013	The European Examination in General Cardiology (BCS, Knowledge-Based Assessment)	
2013, 2018, 2023	Transthoracic Echo British Society of Echocardiography accreditation	
2010	United States Postgraduate Medical Licensing Examination- USMLE Step 3	
2009	MRCP (London)	
2008	4-year BHF PhD in Cardiovascular Science, University of Edinburgh	
2007	ECFMG Certificate, United States Medical Licensing Examination USMLE Step 1, Step 2, Step 2	
	CS	
2005	MSc in Cardiovascular Research, University of Edinburgh, with distinction	
2003	Doctor of Medicine & Surgery, with distinction, top of my year	
	Medical University of Warsaw and Freie Universitaet in Berlin	

## Academic Awards/Prizes

Academic Awards/Prizes		
2023	Assistant Professor of Medicine, Mayo Clinic, Rochester, USA	
2022-24	European Association of Cardiovascular Imaging Leaders of Tomorrow programme	
2022-24	European Society of Cardiology educational grant to cover the cost of the MSc in Clinical Trials	
	programme at the University of Oxford, Green Templeton College	
2015-17	British Heart Foundation Oxford University Centre of Research Excellence fellowship award	
2004-18	British Heart Foundation 4-year MSc-PhD fellowship grant, University of Edinburgh	
2003	Chancellor of the Medical University of Warsaw Prize for excellence	
2001	Polish Ministry of Health Award, a scholarship for the best medical student in Poland	
2001	International Federation of Medical Students' Association, IFMSA award, Muenster Universitaet, Germany	
2001	DAAD- German Government Academic Exchange Award for the outstanding medical student	
2000	Erasmus Socrates Scholarship to continue medical school at the Freie Universitaet in Berlin	
Funding History		
As Principal Invest		
2017	Oxfordshire Health Services Research Fund (OHSRC), research grant, 'The mechanism of adverse cardiac remodelling in diabetic patients after myocardial infarction- OxAMI-Diabetes sub-study', <b>£8,200</b>	
2016	BHF, Oxford University CRE 16 months postdoctoral part-time fellowship covering 40% salary, £36,000	
2016	Oxford University, Returning Career Fund Award, secondment in Prof M Nahrendorf's lab in MGH,	
	Harvard University, £4,250	
2004	British Heart Foundation 4-year MSc-PhD fellowship (salary and research grant), £220,000	
As Co-Applicant		
2007	Supervisor to J Street, BHF funded MSc student, 'The role of 11bHSD1 in the metabolism of oxysterols'	
Employment Histor	ry	
12/2020-	Part-time consultant cardiologist, Mayo Clinic Healthcare in London (cardiac imaging, 40%-time commitment)	
04/2019-	Consultant cardiologist specialising in cardiac imaging, heart failure and cardiomyopathies, Great Western Hospital in Swindon (60%-time commitment)	

05/2018-01/2019 06/2018-07/2018 11/2017-04/2018 01/2015-11/2017 09/2017-11/2017 08/2013-08/2013 08/2010-10/2010 08/2008-07/2010 02/2008-08/2008 09/2004-08/2008 07/2003-10/2004	<ul> <li>Locum Consultant in Acute Medicine, John Radcliffe Hospital, Oxford</li> <li>Locum consultant cardiologist specialising in cardiovascular imaging (non-invasive management of coronary artery disease- stress echo, perfusion CMR, CTCA), maternity cover, Royal Berkshire Hospital, Reading</li> <li>Postdoctoral research fellow, Acute Vascular Imaging Centre, Oxford University</li> <li>ST8 General Medicine, John Radcliffe Hospital</li> <li>ST6-ST7 Cardiology NTN with sub-speciality in cardiovascular imaging, John Radcliffe Hospital</li> <li>ST3-ST5 Cardiology with NTN, Oxford Deanery</li> <li>LAT General Medicine Speciality Registrar, John Radcliffe Hospital</li> <li>Core Medical Training CT1-CT2, Oxford University Hospitals</li> <li>Senior House Officer, Royal Infirmary, Little France, Edinburgh</li> <li>BHF MSc-PhD fellow, University of Edinburgh</li> <li>House officer in Medicine and Surgery</li> <li>Research Assistant, Haematology Laboratory, Humboldt University, Berlin</li> </ul>
Leadership role	
2022-24 2021-22 2020- 2020- 2019- 2019-	Vice-Chair of Mayo Clinic International Research and Education Committee Mayo Clinic Healthcare in London, Steering Committee member, lead of service expansion program NICE Diabetes Pharma advisor Clinical Lead of Cardiac Imaging service at the Mayo Clinic Healthcare in London Clinical Lead of Cardiac MRI service at the Great Western Hospital NHS Trust Clinical Lead of Inherited Cardiac Conditions Clinic at the Great Western Hospital NHS Trust
Research positi	ons
2023- 2020- 2018-2020 2016-2018 2004-2008	Assistant Professor of Medicine, Mayo Clinic, Rochester, USA Honorary Post-doctoral Research Fellow, Deep Medicine, University of Oxford Honorary Post-doctoral Research Fellow, Diabetes Trial Unit, University of Oxford British Heart Foundation Centre of Excellence post-doctoral fellowship in Cardiovascular Imaging, University of Oxford 4-year British Heart Foundation MSc-PhD programme in Cardiovascular Science and Diabetology
1999-2003	Research Assistant, Polish Academy of Science and Haematology Department at the Humboldt University
Academic traini	
2022 2022 2021 2019 2017 2017 2017 2017 2017 2016 2016 2016 2016 2016 2015 2014 2011-2016 2010-2011 2010 2010, 2015 2008 2007 2006 2004 2004 2001	EACVI Leaders of Tomorrow 2-year mentored programme MSc in Clinical Trials, 2-year studies at the University of Oxford Oxford Executive Leadership Programme, Said Business School, Oxford University London CT TAVI course Level 3 Cardiac CT course, Plymouth IRMER course ALS course SCMR workshop, 'CMR for probing mechanisms of heart disease: micro to macro to model', Washington Academic Writing course, Oxford University Level 2 Cardiac CT course, Harefield CT course Medical Statistics course, Nice Perioperative TOE course, Heart Hospital Cardiac Imaging Programme of the Royal Society of Medicine Multimodality Cardiovascular Imaging Symposium, Oxford University Handheld echocardiography course, Ealing Hospital Good Clinical Practice, Oxford University Statistics for Clinical Researchers, Wellcome Trust and University of Edinburgh, 3-month course Microarray and bioinformatics course, BHF and University of Edinburgh Animal Handling and Animal Surgery course, University of Edinburgh Radiation course, University of Edinburgh Drug development, 3-month course, Schering, Humboldt University, Berlin
Teaching 2023-	Teaching Associate, Green Templeton College, University of Oxford
2023-	reaching Associate, Green rempicion College, Oniversity of Oxiora

2023-	leaching Associate, Green Templeton College, University of Oxford
2019-2022	Bristol Medical School Tutor, regular seminars for Years 3 and 4; 'The pathophysiology and pharmacology of
	the coronary artery disease.'

2018, 2020	Oxford Deanery Teaching Programme for Cardiology Registrars organiser; presented a lecture on 'The
	modern role of TOE in management of valvular pathologies and structural heart disease.'
2015-2017	Bucks FICE course organiser, run echo course for intensive care specialists (approved by BSE)
2009-2017	PACES bedside teaching to medical doctors, Oxford University Hospitals
2009-2014	Green Templeton College Oxford University Tutor, regular weekly bedside teaching for Y4 students; 2-3
	lectures per year for Y4 medical students; cardiac physiology for Y1 graduate entry medical students.
2012-2013	Wycombe General Hospital Foundation Years Programme Tutor; regular weekly lectures and seminars in
	General Medicine and Cardiology for junior doctors
2007	Supervisor of BHF MSc student during his final research project
2004 2002	Instrume Leave Tester, University of Meansury regular weakly coming to far undergraduate students

2001-2002 **Immunology Tutor**, University of Warsaw, regular weekly seminars for undergraduate students

## **Membership of Professional Organisations**

2020-present	European Association of Cardiovascular Imaging, Leaders of Tomorrow programme
2019-present	NICE Diabetes Pharma committee member/cardiology advisor
2016-present	Society of Cardiovascular Computed Tomography
2014-present	Society of Cardiovascular Magnetic Resonance
2011-present	Royal Colleges of Physicians training board
2010-present	European Association of Cardiovascular Imaging member
2007-present	Royal College of Physicians of London
2010-present	British Society of Echocardiography
2005-present	European Society of Cardiology (Fellow since 2022)

### **Textbook/Chapter Contributions**

 Oxford Specialist Handbooks in Cardiology, 3<sup>rd</sup> edition, Chapter 5 Transoesophageal examination. Leeson P, Becher H, Wamil M. In Press

#### **Editorial roles**

I am the editor of a research topic for the journal **Frontiers in Cardiovascular Medicine**, which focuses on the role of multimodality imaging in diagnosing and managing cardiomyopathies (2024).

#### **Publications**

1. Rao S, Li Y, Mamouei M, Salimi-Khorshidi G, **Wamil M**, Nazarzadeh M, Yau C, Collins G, Jackson R, Vickers A, Danaei G, Rahimi K Refined selection of individuals for preventive cardiovascular disease treatment with a Transformer-based risk model <u>BMJ</u> (accepted)

2. Challa A, Negm A, Mahayni A, **Wamil M**, Williamson E, Guerrero M, Weishaar P, Collins J. Transcatheter Mitral Valve Replacement: Treatment Planning With Computed Tomography **Seminars Roent**. 2024 Jan;59(1):67-75

3. Wamil M, Nazarzadeh M, Rahimi K Blood pressure management in type 2 diabetes: a review of recent evidence, <u>Heart</u> (accepted July 2024)

4. Wamil M, Goncalves M. Multi-modality cardiac imaging confirms quadricuspid aortic valve and excludes papillary fibroelastoma, <u>EHJ-IMP</u>April 2024

5. Hewitson LJ, Cadiz S, Al-Sayed S et al, **Wamil M**, Panoulas V, Rahbi H Time to TAVI: streamlining the pathway to treatment, **Open Heart**, 2023 Sep ; 10(2):e002170

6. Wamil M, Hassaine A, Rao S, Li Y, Mamouei M, Canoy D, Nazarzadeh M, Bidel Z, Copland E, Rahimi K and Salimi-Khorshidi G, Stratification of diabetes in the context of comorbidities, using representation learning and topological data analysis; <u>Scientific</u> <u>Reports</u>, 2023 Jul16;13(1):11478

7. Roca-Fernández A, **Wamil M**, Telford A, Thomaides-Brears H, Dennis A, Banerjee R, Robson M, Bull S, Ntusi N, Banerjee A, Cardiovascular impairment in Long Covid 1-year post-SARS-CoV-2 infection, <u>Open Heart 2023 Feb;10(1): e002241</u>

8. Wamil M, Goncalves M, Rutherford A, Borlotti A, Pellikka PA, Multi-modality cardiac imaging in the management of diabetic heart disease <u>Frontiers of Cardiovascular Medicine</u>

9. Nazarzadeh M, Bidel Z, Canoy D, Copland E, Bennett AD, Dehghan A, Smith GD, Holman RR, Woodward M, Gupta A, Adler AI, **Wamil M**, Sattar N, Cushman WC, McManus RJ, Teo K, Davis BR, Chalmers J, Pepine CJ, Rahimi K, Blood Pressure Lowering Treatment Trialists' Collaboration Blood pressure-lowering treatment for prevention of major cardiovascular diseases in people with and without type 2 diabetes: an individual participant-level data meta-analysis, <u>Lancet Diabetes Endocrine</u> 2022 Sep;10(9):645-654.

10. Rahimi K, MCManus R, **Wamil M**, Chalmers J, Canoy D Blood pressure meta-analysis highlights an implementation gap, Lancet, 2022 Apr 9;399(10333):1380.

11. Rahimi K, Bidel Z, Nazarzadeh M, Coplan E, Canoy D, **Wamil M**, Majert J, McManus R; Age-stratified and blood-pressurestratified effects of blood-pressure-lowering pharmacotherapy for the prevention of cardiovascular disease and death: an individual participant-level data meta-analysis, <u>Lancet</u> 26 Aug 2021 S0140-6736(21)01921-8.

12. Nazarzadeh M, Bidel Z, Coplan E, Canoy D, **Wamil M**, Majert J, Byrne K, Sundstrom J, Teo K, Davis B, Chalmers J, Pepine C, Dehghan A, Bennett D, Smith D, Rahimi K; Blood pressure lowering and risk of new-onset type 2 diabetes: an individual participant data meta-analysis., **Lancet** November 2021 13;398(10313):1803-1810. doi: 10.1016/S0140-6736(21)01920-6.

13. **Wamil M**, Coleman R, Adler IA, McMurray J, Holman RR; Increased Risk of Incident Heart Failure and All-cause Mortality in People with Insulin Resistance in the United Kingdom Prospective Diabetes Study: UKPDS; **Diabetes Care** 2021 Aug;44(8):1877-1884

14. Dennis A, **Wamil M**, Alberts J, Oben J, Cuthbertson DJ, Wootton D, Crooks M, Gabbay M, Brady M, Hishmeh L, Attree E, Heightman M, Banerjee R, Banerjee A; COVERSCAN study investigators; Multiorgan impairment in low-risk individuals with post-COVID-19 syndrome: a prospective, community-based study <u>BMJ Open</u> 2021 Mar 30;11(3): e 048391

15. **Wamil M**, McMurray JJ, Scott CAB, Coleman RL, Sun Y, Standl E, Rydén L, Holman RR Incidence, predictors, and importance of heart failure events in patients with impaired glucose tolerance in the Acarbose Cardiovascular Evaluation (ACE) trial, <u>Diabetes Research and Clinical Practice</u> 2020 Dec 170:108488

16. Wamil M, Borlotti A, Briosa e Gala A, Bracco A, Liu D, Piechnik S, Ferreira V, Alkalil M, DeMaria G, Fahrni G, Dawkins S, Wolfrum M, Banning A, Kharbanda R, Neubauer S, Choudhury R, Channon K, Dall'Armellina E Combined T1-mapping and tissue tracking analysis improves assessment of adverse LV remodeling following acute STEMI- an Oxford Acute Myocardial Infarction (OxAMI) study International Journal of Cardiovascular Imaging 2019 Jul, 5(7):1297-1308

17. De Ferrari G, Stevens S, Ambrosio G, Leonardi S, McGuire DK, Armstrong PD, Green JB, **Wamil M**, Holman RR, Peterson ED; on behalf of the TECOS Study Group; Low-Density Lipoprotein Cholesterol Treatment Patterns and Associated Outcomes in Patients with Type 2 Diabetes and Established Cardiovascular Disease: Insights from TECOS, <u>American Heart Journal</u> 2020 Feb;220:82-88

18. Wamil M, Bull S and Newton J. The modern role of transoesophageal echocardiography in the management of valvular pathologies. <u>Echo Research and Practice</u> Jan 17

19. Wamil M, Newton J and Bull S. TOE-what a general cardiologist needs to know? Heart 2017 Apr;103(8):629-640

20. Bajgent C, Laundray M et al. Collins R and **SHARP Investigators**. The effects of lowering LDL cholesterol with simvastatin plus ezetimibe in patients with chronic kidney disease (Study of Heart and Renal Protection): a randomised placebo-controlled trial <u>Lancet</u> 2011 Jun 9; 377(9784): 2181–2192

21. Digby, J, Martinez F, Jefferson A, **Wamil M**, Ruparelia N, Greaves D and Choudhury R. Anti-inflammatory effects of nicotinic acid in human monocytes are mediated by GPR109A dependent mechanisms. <u>Atherosclerosis, Thrombosis and Vascular</u> <u>Biology</u> 2012 Mar;32(3):669-76.

22. Wamil M, Battle JH, Turban S, Kipari T, Peixoto RS, Fernbach D, Ramage L, Chapman KE, Hughes J, Dunbar D, Seckl JR and Morton NM. Depot-specific insulin-sensitizion and reduced inflammation drives the protective fat distribution of 11β-HSD1-/mice. <u>Diabetes</u> 2011, Apr;60(4):1158-67.

23. Wamil M, Andrew R, Chapman K, Street J, Morton NM, Seckl JR. 7-oxysterols modulate glucocorticoid activity in adipocytes. Endocrinology. 2008, Dec;149(12):5909-18

24. Wamil M., Seckl JR. Inhibition of 11beta-hydroxysteroid dehydrogenase type 1 as a promising therapeutic target. <u>Drug</u> <u>Discovery Today</u>. 2007, Jul; 12(13-14):504-520.

25. Morton NM, Densmore V, Wamil M, Ramage L, Nichol K, Bünger L, Seckl JR and Kenyon CJ. A polygenic model of the metabolic syndrome with reduced circulating and intra-adipose glucocorticoid action **Diabetes**. 2005, Dec; 54(12):3371-8.

26. Snarski E, Kedzierska M, Wamil M, Prejbisz A, Pedzisz P, Wiktor-Jedrzejczak W. (2002, February 1). Time till diagnosis in blood neoplasia - an index of the efficiency of health care system? Acta Hematologica 33, 257-262.

27. Szopa M, **Wamil M.** (2007, May 20). 11beta-hydroxysteroid dehydrogenase type 1 inhibitor: a novel therapeutic target in the metabolic syndrome. Diabetologia Praktyczna 8, 77-83.

28. Maurin JK, Lasek W, Gorska A, Switaj T, **Wamil M**, Mlynarczuk I, Kazimierczuk Z. Synthesis, structure and tumour necrosis factor-alpha production-enhancing properties of novel adamantylamino heterocyclic derivatives. Anticancer Drug Design 2001, Apr; 16(2-3):73-80.

## Submitted/in revision:

29. C Apurva, M Radike, **M Wamil**, N Weber, E Wiliamson Dynamic evaluation of mitral valve geometry in primary and functional mitral regurgitation using multiphase computed tomography: Implications of sex differences for transcatheter mitral valve repair. Scientific Reports (in revision)

30. C Apurva, M Radike, **M Wamil**, N Weber, E Wiliamson Interobserver and Intraobserver Variability Among Different Vendors for Mitral Valve Assessment: Implications for Transcatheter Mitral Valve Repair, submitted

31. Wamil M, K Rahimi Blood pressure management in type 2 diabetes: a review of recent evidence Heart (accepted) August 2024

# Presentations

- 1. Increased Risk of Incident Heart Failure and All-cause Mortality in People with Insulin Resistance in the United Kingdom Prospective Diabetes Study: UKPDS, accepted for ADA 2020, Chicago
- 2. The mechanism of adverse cardiac remodeling after myocardial infarction in the diabetic heart, European Society of Cardiology, Paris 2019
- Combined T1-mapping and tissue tracking analysis improves assessment of adverse LV remodelling following STEMI; SCMR Washington, USA 2017
- 4. Cardiovascular imaging in coronary artery disease; invited talk NIH, Washington, USA 2014
- Adipose tissue transcriptome profile underlying the protective phenotype of 11beta-HSD1-/- mice. ENDO 2008, San Francisco, USA 2008
- 6. 7-oxysterols modulate glucocorticoid activity in adipocytes. Keystone Symposia, Nuclear Receptor Pathways to Metabolic Regulation; Steamboat Springs, USA, 2008
- 7. 7-oxysterols modulate glucocorticoid activity. 2nd Integrative Physiology Post-Graduate Conference, University of Aberdeen, 2008
- 8. The role of 11beta-HSD1 in macrophage accumulation in adipose tissue. Centre for Cardiovascular Science Symposium; Edinburgh, 2007
- 9. 11beta-hydroxysteroid dehydrogenase type 1: key regulator of oxysterol metabolism. Society for Endocrinology BES; Birmingham, 2007