

Professor John P Greenwood
MBChB, PhD, FRCP, FACC, FESC, FBCS(Hon), FSCMR, FICS(Hon)

NATIONAL / INTERNATIONAL LEADERSHIP ROLES

British Cardiovascular Society (BCS) Programme Committee (2013-2016)
British Cardiovascular Society (BCS) Vice President-elect, Education & Research (2016-2017)
British Cardiovascular Society (BCS) Vice President, Education & Research (2017-2020)
BCS Board, BCS Executive, BCS Council member (2016-2024)
British Cardiovascular Society (BCS) President-elect (2020-2021)
British Cardiovascular Society (BCS) President (2021-2024)

British Heart Foundation (BHF) Clinical Research Collaborative, Strategic Oversight Board (2020-2024)
European Society of Cardiology (ESC), Cardio-policy group (2022-2024)
ESC, Advocacy Committee (2021-current)
Royal College of Physicians (RCP), London, Council Member (2021-2024)
Chair, NICOR Professional Liaison Group (2021-2024)
Heart Research UK charity - Novel & Emerging Technologies, Grant Award Panel (2018-2023)
American College of Cardiology, member - Assembly of International Governors (AIG), (2021-2024)
ACC/AHA, 2021 Management of Chest Pain; Guideline writing committee (2018-2021):
Gulati M, Levy PD, Mukherjee D, Amsterdam E, Bhatt DL, Birtcher KK, Blankstein R, Boyd J, Bullock-Palmer RP, Conejo T, Diercks DB, Gentile F, Greenwood JP, Hess EP, Hollenberg SM, Jaber WA, Jneid H, Joglar JA, Morrow DA, O'Connor RE, Ross MA, Shaw LJ. 2021 AHA/ACC/ASE/CHEST/SAEM/SCCT/SCMR guideline for the evaluation and diagnosis of chest pain: a report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. Circulation 2021; 144(22):e368-e454.

Board Member, British Society for Cardiovascular Magnetic Resonance (BSCMR) (2008-2020)
Deputy Treasurer (BSCMR) (2012-2014)
Treasurer (BSCMR) (2014-2016)
President-elect (BSCMR) (2016-2018)
President (BSCMR) (2018-2020)
Chair, BSCMR CHD task force (2012-2022)
UK Imaging Council member & CMR representative (2016-2020)

Web Committee Member, SCMR (Society for Cardiovascular Magnetic Resonance) (2009-2012)
Vice Chair, Clinical Trials Committee of SCMR (2013-2015)
Chair, Clinical Trials Committee of SCMR (2015-2017)
Programme Committee member of SCMR (2016-2019)

Editorial Board, Journal of Cardiovascular Magnetic Resonance (JCMR) (2011-2017)
Associate Editor, Journal of Cardiovascular Magnetic Resonance (JCMR) (2017-2023)
Editorial Board, JACC Cardiovascular Imaging (2015-current)

President of the Northern Cardiology Group (1997-2001)
British Cardiac Society Council (2003 - 2004) - British Junior Cardiologists Association Rep.
Secretary, British Junior Cardiologists Association (2001 - 2003)
President, British Junior Cardiologists Association (2003 - 2004)
UK Specialist Advisory Committee (SAC), Cardiology - (2000 - 2003)

LOCAL / REGIONAL LEADERSHIP ROLES

Director of the LTHT Cardiovascular Clinical Research Facility (2013-current)
Clinical Director, Leeds Multidisciplinary Cardiovascular Research Centre (2012-2015)
Clinical Lead for Cardiovascular MR, Leeds Teaching Hospitals NHS Trust (2011-2016)
Chairman, West Yorkshire cardiac network imaging subgroup (2011-2013)
Chairman, West Yorkshire PCI clinical governance group (2006-2010)

RESEARCH FIELD

- Cardiovascular imaging and clinical trials in stable and unstable Coronary Artery Disease (CAD) and valvular heart disease.

Recent large research grants

2015-2020: MRC (MR/M00899/1). Plein (PI), Green, Conaghan, Duckett, Short, Beech, Brackenbury, Buckley, Coles, Emery, Greenwood, Maitland, Markham, Stewart, Twelves. A National Centre for Translational Hyperpolarised Magnetic Resonance. £7,625,237

2016-2021 BHF (RG/16/1/32092). Plein (PI), Kearney, Ajjan, Greenwood. Mechanisms of cardiovascular disease in diabetes mellitus. £912,067

2018-2021 BHF (SP/17/11/32885). Cook (PI), Greenwood, Flett, Prasad, Wright, Samani, Page, McCann, Ware, Peebles, Neubauer. Defining the genetics, biomarkers and outcomes for dilated cardiomyopathy: a prospective multi-centre study (GO-DCM). £1,999,834.

2018-2021 DUK (18/0005870). Plein (PI), Greenwood, Schneider, Levelt, McConnachie, The Impact of Type 2 Diabetes on Cardiac Metabolic Phenotype in Patients with Severe Aortic Stenosis. £324,984.

2019-2023 BHF (RG/18/11/34036). Ariëns, Yuldasheva, Connell, Ridger, Greenwood, Ajjan, Philippou. Role of fibrin biofilm and clot network architecture in thrombus stability. £1,323,069.

2020-2021: UKRI-NIHR (COV0254). Greenwood (PI), McCann, Berry, Dweck, Moon, Miller, Chiribiri, Prasad, Ferreira, Bucciarelli-Ducci, Dawson. Demographic, multi-morbidity and genetic impact on myocardial involvement and its recovery from COVID-19: the COVID-HEART study. £775,096. (01/08/2020-31/07/2021).

2021-2026: Heart Research UK (TR2442/19/24). Greenwood (PI), Berry, McCann, Kelion, et al., A pragmatic approach to the investigation of stable chest pain: a UK, multi-centre, randomised trial to improve patient experience, outcomes and NHS cost efficiency (CE-MARC 3). £149,942.

2021-2024: NIHR/AI in Healthcare Award (AI_AWARD02013). Green D, Antoniadou, Hart, Kardos, Greenwood. Artificial Intelligence to improve Cardiometabolic Risk Evaluation using CT (ACRE-CT). £1,476,470 (01/03/2021-28/02/2024).

2021-2024: BHF (PG/21/10322). Swoboda (PI), Levelt, Gierula, Graham, Greenwood, Plein. Is there an association between cardiac fibrosis and ventricular arrhythmia in endurance athletes? £316,530.

2021-2022: HRUK (RG2692/21/22). Spyridopoulos, Greenwood, Todryk, Filby, Stellos. T cell immunity and myocardial inflammation in patients recovering from COVID-19 infection. £147,649.

2021-2022: BHF (PG/21/10702). Arnold, McCann, Raman, Neubauer, Greenwood, Berry, Newby, Antoniadou, Brightling, Khunti, Sattar, Toshner, Tunnicliffe. Assessing the impact of Comorbidities and Sociodemographic factors on Multi-organ Injury following Covid-19 infection (COSMIC). £349,372

2022-2025: BHF (PG/21/10724). Swoboda, Greenwood, Stocken, Walker, Curzen, Fairbairn, Berry, Kelion, McCann, Bucciarelli Ducci. A pragmatic approach to the investigation of stable chest pain: Health economic and quality of life analysis of a UK, multi-centre, randomised trial. £148,664.48

2023 - 2024: HRUK (TRP22-100036). Swoboda, Plein, Levelt, Greenwood, Frangi. Quantification of left atrial fibrosis: associations exercise and atrial fibrillation. £126,125.60.

2023-2028: BHF programme grant (RG/F/23/110104). Berry, Greenlaw, Greenwood, Heggie, Hoole, Husmeier, Sattar, Welsh, Wu. Angina after PCI: systems medicine to inform downstream strategies. £1,081,035.00.

2024-2029: NIHR HTA (NIHR159132). Swoboda, Greenwood, Berry, Petrie, McCann, Squire, McConnachie, Wu, Weir-McCall, Heggie, Humphreys-Davies. CROSS sectional versus invasive imaging in patients with Heart Failure (CROSS-HF trial). ~£2M.

Recent peer-reviewed publications selected out of >360 (H-index 58)

1. D Perera, M Ryan, HP Morgan, JP Greenwood,for the REVIVED-BCIS2 Investigators. Viability and Outcomes with Revascularization or Medical Therapy in Ischemic Ventricular Dysfunction. A Prespecified Secondary Analysis of the REVIVED-BCIS2 Trial. **JAMA Cardiology** 2023; (in press).
2. D Perera, HP Morgan, M Ryan, M Dodd, T Clayton, PD O'Kane, JP Greenwood, MC Petrie. Arrhythmia and death following percutaneous revascularization in ischemic left ventricular dysfunction. Prespecified analyses from the REVIVED-BCIS2 trial. **Circulation** 2023; (in press).
3. N Jex, JP Greenwood,E Levelt. The association between type 2 diabetes mellitus and changes in myocardial structure, contractile function, energetics and blood flow before and after aortic valve replacement in patients with severe aortic stenosis. **Circulation** 2023; (in press).
4. PS Douglas, MG Nanna, MD Kelsey, E Yow, DB Mark, MR Patel, C Rogers, JE Udelson, CB Fordyce, N Curzen, G Pontone, P Maurovich-Horvat, B De Bruyne, JP Greenwood, S Vemulapalli, for the PRECISE Investigators. Comparison of an Initial Risk-Based Testing Strategy vs Usual Testing in Stable Symptomatic Patients With Suspected Coronary Artery Disease: The PRECISE Randomized Trial. **JAMA Cardiol** 2023; (in press).
5. A Moss, M Daghm, E Tzolos, MN Meah, K-L Wang, A Bularga, PD Adamson, J Kwiecinski, A Fletcher, D Dawson, P Arumugam, N Sabharwal, JP Greenwood,, DE Newby, on behalf of the PRE18FFIR Investigators. Coronary Atherosclerotic Plaque Activity and Future Coronary Events. **JAMA Cardiol** 2023; (in press).
6. J Artico,....., for the COVID-HEART investigators, JP Greenwood. Myocardial involvement after hospitalization for COVID-19 complicated by troponin elevation: a prospective, multicenter, observational study. **Circulation** 2023; 147:364–374.
7. D Perera, T Clayton, PD O'Kane, JP Greenwood, et al., for the REVIVED-BCIS2 Investigators. Percutaneous Revascularization for Ischemic Left Ventricular Dysfunction. **New England Journal of Medicine** 2022; 387(15):1351-1360.
8. S Kwak, RJ Everett, TA Treibel,..... JP Greenwood, JC Moon, MR Dweck, S-P Lee. Markers of Myocardial Damage Predict Mortality in Patients with Aortic Stenosis. **J Am Coll Cardiol** 2021; 78(6):545-558.
9. Gulati M, Levy PD, Mukherjee D, Greenwood JP, Hess EP, Hollenberg SM, Jaber WA, Jneid H, Joglar JA, Morrow DA, O'Connor RE, Ross MA, Shaw LJ. 2021 AHA/ACC/ASE/CHEST/SAEM/SCCT/SCMR guideline for the evaluation and diagnosis of chest pain: a report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. **Circulation** 2021; 144(22):e368-e454.
10. A Jabbar, L Ingoe, S Junejo,, JP Greenwood, A Zaman, S Razvi. Effect of levothyroxine on left ventricular ejection fraction in patients with subclinical hypothyroidism and acute myocardial infarction: a randomized clinical trial. **JAMA** 2020;324(3):249-258.
11. PJ McCartney, AM Maznyczka, H Eteiba, M McEntegart, KG Oldroyd, JP Greenwood,, I Ford, A McConnachie, C Berry, for the T-TIME investigators. Low-Dose Alteplase during Primary Percutaneous Coronary Intervention According to Ischemic Time. **J Am Coll Cardiol** 2020; 75(12):1406-1421.
12. RJ Everett, TA Treibel, M Fukui, H Lee, M Rigolli, A Singh, P Bijsterveld....., SK Piechnik, J Schulz-Menger, EB Schelbert, MA Clavel, DE Newby, S Myerson, P Pibarot, S Lee, JL Cavalcante, SP Lee, G McCann, JP Greenwood, JC Moon, MR Dweck. Extracellular Myocardial Volume in Patients with Aortic Stenosis. **J Am Coll Cardiol** 2020; 75(3):304-316.
13. AH Gershlick, AS Banning, E Parker,, SL Hetherington, GP McCann, JP Greenwood, N Curzen. Long Term Follow-Up of the Randomized Trial of Complete Versus Lesion-Only Revascularization in Patients Undergoing Primary Percutaneous Coronary Intervention for STEMI and Multivessel Disease - The CvLPRIT Trial. **J Am Coll Cardiol** 2019; 74(25):3083-3094.
14. DJ Hausenloy, RK Kharbada, UK Møller,, JP Greenwood, DM Yellon, HE Bøtker, on behalf of the CONDI-2/ERIC-PPCI Investigators. A single-blind randomised controlled trial investigating the effect of remote ischaemic

- conditioning on clinical outcomes in patients with acute myocardial infarction: The CONDI-2/ERIC-PPCI trial. **The Lancet** 2019; 394(10207):1415-1424.
15. E Nagel, JP Greenwood, GP McCann,, J Schulz-Menger, R Das, J Wong, DJ Hausenloy, H Steen. C Berry, on behalf of the MR-INFORM Investigators. Magnetic Resonance Perfusion or Fractional Flow Reserve in Coronary Disease. **New England Journal of Medicine** 2019;380:2418-28.
 16. PJ McCartney, H Eteiba, AM Maznyczka, M McEntegart, JP Greenwood,, KA Fox, I Ford, A McConnachie, C Berry, for the T-TIME investigators. Effect of low-dose intracoronary alteplase during primary percutaneous coronary intervention on microvascular obstruction in patients with acute myocardial infarction: a randomized clinical trial. **JAMA** 2019;321(1):56-68.
 17. Musa TA, Treibel TA, Vassiliou VS, Captur G,, Dweck M, Myerson SG, McCann GP, Prasad SK, Moon JC, Greenwood JP. Myocardial Scar and Mortality in Severe Aortic Stenosis: Data from the BSCMR Valve Consortium. **Circulation** 2018; 138:1935-1947.
 18. GCM Siontis, D Mavridis, JP Greenwood, et al. Outcomes of Non-invasive Diagnostic Modalities for the Detection of Coronary Artery Disease: A Network Meta-analysis of Diagnostic Randomized Controlled Trials. **British Medical Journal** 2018; 360:k504.
 19. Singh A, Greenwood JP, et al. Comparison of exercise testing and CMR measured myocardial perfusion reserve for predicting outcome in asymptomatic aortic stenosis: PRognostic Importance of MIcrovascular Dysfunction in Aortic Stenosis (PRIMID AS) study. **European Heart Journal** 2017;38:1222-1229.
 20. JP Greenwood, DP Ripley, C Berry, et al. Effect of care guided by cardiovascular magnetic resonance, myocardial perfusion scintigraphy, or NICE guidelines on subsequent unnecessary angiography rates: a randomized trial (CE-MARC 2). **JAMA** 2016; 316(10):1051-1060.
 21. JP Greenwood, BA Herzog, JM Brown, et al. Prognostic Value of CMR and SPECT in Suspected Coronary Heart Disease: Long Term Follow-Up of the CE-MARC Study. **Annals of Internal Medicine** 2016; 165(1):1-9.
 22. JP Greenwood, M Motwani, N Maredia, et al. Comparison of Cardiovascular Magnetic Resonance and Single-Photon Emission Computed Tomography in Women with Suspected Coronary Artery Disease from the CE-MARC Trial. **Circulation** 2014; 129:1129-1138.
 23. SG Myerson, J d'Arcy, JP Christiansen, LE Dobson, R Mohiaddin, JM Francis, B Prendergast, JP Greenwood, TD Karamitsos, S Neubauer. Determination of clinical outcome in mitral regurgitation with cardiovascular magnetic resonance quantitation. **Circulation** 2016: 133:2287-2296.
 24. KK Witte, R Byrom, J Gierula, M Paton, HA Jamil, J Lowry, R Gillott, S Barnes, LC Kearney, JP Greenwood, et al. Favourable effects of vitamin D on cardiac function in patients with chronic heart failure secondary to left ventricular systolic dysfunction – the MRC-funded VINDICATE Study. **J Am Coll Cardiol** 2016; 67(22): 2593-2603.
 25. JP Greenwood, N Maredia, JF Younger, et al. Cardiovascular magnetic resonance and single-photon emission computed tomography for diagnosis of coronary heart disease (CE-MARC): a prospective trial. **Lancet** 2012; 379(9814): 453-460.