Dr Thomas A Treibel MA Hons cantab FRCP FSCMR PhD

Name: Thomas A Treibel

Institute: Institute of Cardiovascular Sciences, University College London



CAREER STATEMENT

I am a clinical academic cardiologist at UCL and Barts Heart Centre. My research aims to understand in detail the pathophysiology of the failing heart in patients with heart valve disease, a major societal problem. My research combines imaging and basic science to deliver better risk prediction, identify novel drug target and test these in clinical trials to ultimately improve patient outcomes.

CURRENT POSTS

05/23 - date Di	irector. Department for	Cardiac Magnetic Resonance	Barts Heart Centre.
-----------------	-------------------------	----------------------------	---------------------

01/20 - date Associate Professor in Cardiology

Institute of Cardiovascular Sciences, University College London

10/19 - date Consultant Cardiologist

Special Interest in Multimodality Imaging and Valvular Heart Disease

Barts Heart Centre and University College Hospital

07/20 - date Board Member, British Society of Cardiovascular Magnetic Resonance.

01/19 - date Associated Editor for Frontiers in Cardiovascular Imaging

10/19 - date Research Working group member for valvular heart disease for BSCMR and SCMR

01/21 - date Multi-modality imaging lead, SCMR Education Committee

01/23 - date Program Chair, SCMR/EACVI Annual Scientific Session, London, January 2024

02/23 - date Member, EACVI Cardiac Magnetic Resonance Task Force

04/23 - date Task force co-lead, Clinical Trials, NIHR-BHF Cardiovascular Partnership AS Working Group

AWARDS & FELLOWSHIPS

10/22 ESC Scholarship for MSc Clinical Trials, University of Oxford, 2022-2024 (£36K)

06/22 British Cardiovascular Society Michael Davies Early Career award

01/20 - date British Heart Foundation Intermediate Clinical Research Fellow (FS/19/35/34374)

Mechanisms of excess risk in Aortic STEnosis after valve Replacement (MASTER Study)

10/17 - 10/19 NIHR Academic Clinical Lecturer in Cardiology, University College London

National Training No: LDN/007/099/A, CCT 04/01/2019

01/13 - 04/16 NIHR Doctoral Research Fellowship (NIHR-DRF-2013-06-102), University College London

PhD in Cardiovascular Magnetic Resonance in Aortic Stenosis

10/10 - 01/13 NIHR Academic Clinical Fellow in Cardiology, University College London

- Winner, Early Career Award, Translational Research. SCMR Annual Meeting, 2017.
- SCMR Travel Award SCMR Los Angeles 2016 and SCMR Washington DC 2017.
- Runner-up, Early Career Award, Clinical Research. Short-listed x2. SCMR, 2016.
- Short-Listed for Young Investigator Award. EuroCMR, Florence, May 2016.
- Short-Listed for Young Investigator Award. SCCT, July 2016.
- Winner, Young Investigator Award. British Society of CMR AGM 2015.

SELECTED RESEARCH GRANTS

2024 – 1° Applicant: BHF Special Project Grant "The IMProVe Study: Integration of Imaging, Myocardial Proteomics and Transcriptomics in Valvular Heart Disease. (SP/F/24/150071, 3 years, £799,991).

2024 – Co-I, BHF Programme Grant, "Defining the roles and therapeutic potential of C-type natriuretic peptide in the cardiac and vascular dysfunction underpinning HFpEF" (Adrian Hobbs, RG/F/23/110123; £951,763).

2023 - Co-PI, Industry IRS (JenaValve) Myocardial Remodeling in Aortic Regurgitation after TAVI. (£175,000).

2021 – 1° Applicant: BHF Clinical Research Fellowship George Thornton (£284,000)

2020 – Principal Investigator, Barts Charity Grant: COVID-19 consortium Healthcare worker Bioresource:

Immune Protection and Pathogenesis in SARS-CoV-2 (COVID-HCW Study); MRC0281 (£1,460,492)

2020 – Co-applicants, UKRI DHSC/UKRI COVID-19 Rapid Response Initiative - Transmission, pathogenesis and immunogenicity of SARS-CoV-2 in frontline healthcare workers: a national longitudinal cohort (£719,643).

- 2019 1° Applicant: BHF Intermediate Fellowship, "Mechanisms of excess risk in Aortic STEnosis after valve Replacement" (MASTER)", (FS/19/35/34374, £905,000).
- 2019 UCL Lead applicant: Horizon 2020 Grant, CRUCIAL Consortium Microvascular Rarefaction in Cardiovascular Disease (€6million total; €950,000 UCL).
- 2019 Co-applicant: BHF CRTF Dr Patel, CAAST study: cardiac amyloid and AS in the TAVI era (£161,931).
- 2018 1° Applicant: Barts Charity Excess Risk in AS after AVR (£50,000).
- 2018 Leader-Track Investigator for myocardial biology in valve disease, UCL BHF Accelerator Award (£1 M).
- 2018 1° applicant, Academy of Medical Sciences, Clinical Lecturer Starter Grant (£29,500).
- 2017 1° applicant UCL/UCLH BRC Cardiovascular Diseases Theme 2017/18 Small Grant Awards (£24,900).
- 2016 Co-applicant: UK Foreign Commonwealth Office Peru Prosperity Fund: Delivering CMR to developing and middle income countries (£79,792).
- 2016 Co-applicant for BHF CRTF: Dr P Scully, "Cardiac amyloid in severe AS undergoing TAVI" (£233,000).

COVID Research

Principal Investigator: COVIDsortium, the HealthCare Workers Study. Started on lockdown day, the first HRA approved UK study. (~10 universities, NCT04318314). >20 papers published (eg Nature, Science x3, Lancet x3, EHJ). Grants: UKRI, Rosetrees, BMA. £1.4m raised (philanthropy: Goldman Sachs, Citadel Hedgefund, Justgiving). PI at UCH, London, for the national UHP-COVID studies COVID-Heart and C-MORE.

Selected Publications PubMed 173 publications, Citations 12360, H-index 56, i-10 index 118

- **Treibel TA,** López B, González A, ..., Díez J, Moon JC. Reappraising <u>Myocardial Fibrosis in Severe Aortic Stenosis</u> an invasive and non-invasive study in 133 patients. **Eur Heart J. 2017**.
- **Treibel TA***, Kozor R*, Menacho K,..., Fontana M, Moon JC. <u>Left Ventricular Hypertrophy Revisited</u>: Cell And Matrix Expansion Have Disease-Specific Relationships. **Circulation. 2017.**
- Treibel TA, ..., Díez J, Moon JC. Reverse Myocardial Remodeling in Aortic Stenosis: Cellular Hypertrophy and Diffuse but not Focal Fibrosis Regress Following Aortic Valve Replacement. J Am Coll Cardiol. 2018.
- Musa TA*, Treibel TA*, ..., Dweck MR, Myerson SG, McCann GP, Prasad SK, Moon JC, Greenwood JP.
 Myocardial Scar and Mortality in Severe Aortic Stenosis. Circulation. 2018.
- Coats CJ, Heywood WE, Virasami A, Ashrafi N, Syrris P, Dos Remedios C, Treibel TA, Moon JC, Lopes LR, McGregor CGA, Ashworth M, Sebire NJ, McKenna WJ, Mills K, Elliott PM. Proteomic Analysis of the Myocardium in Hypertrophic Obstructive Cardiomyopathy. Circ Genom Precis Med. 2018.
- Everett RJ, **Treibel TA**,..., Cavalcante JL, Lee SP, McCann GP, Greenwood JP, Moon JC, Dweck MR <u>Extracellular Myocardial Volume in Patients With Aortic Stenosis</u>. **J Am Coll Cardiol**. **2020**.
- Nitsche C, ..., Moon JC, Mascherbauer J, Treibel TA. Prevalence and Outcomes of Concomitant <u>Aortic Stenosis and Cardiac Amyloidosis</u>. J Am Coll Cardiol. 2020.
- Kwak S, Everett RJ, **Treibel TA**, ... Lee SP. <u>Markers of Myocardial Damage Predict Mortality</u> in Patients With Aortic Stenosis. **J Am Coll Cardiol. 2021.**
- Pei J, Harakalova M, **Treibel TA**, ..., Asselbergs FW, Cheng C. H3K27ac acetylome signatures reveal the epigenomic reorganization in remodeled non-failing human hearts. **Clin Epigenetics**. **2020**.
- Reynold C, ..., **Treibel TA**,...,Boyton R. <u>Prior SARS-CoV-2 infection augments B and T cell responses to single dose vaccination</u> rescuing immunity to variants. **Science 2021.**
- Joy G,..., Treibel TA, Moon JC. <u>Cardiovascular impact of mild COVID-19</u>. JACC imaging 2021
- Manisty C, Treibel TA, ..., Moon JC. <u>Ab response to first BNT162b2 dose after prior SARS-CoV-2</u>. Lancet.
 2021.
- Kotecha T,..., Treibel TA, Fontana M. Myocardial injury patterns after TnT-positive COVID-19. EHJ. 2021
- Reynolds CJ,... Treibel TA,..Boyton RJ. <u>Discordant nAbs and T cells in mild SARS-CoV-2</u>. Sci Immunol. 2020.
- Treibel TA,...,Moon JC. <u>COVID-19 PCR in asymptomatic health-care workers</u>. Lancet. 2020.
- Swadling L, **Treibel TA**,..., Maini M. <u>Pre-existing polymerase-specific T cells expand in abortive seronegative SARS-CoV-2. **Nature. 2022.**</u>
- Dweck MR, ... Treibel TA, ..., Otto CM, Pibarot P. <u>Multi-modality imaging in aortic stenosis: an EACVI clinical consensus document</u>. Eur Heart J Cardiovasc Imaging. 2023
- Aghagolzadeh P, ...Treibel TA, ...Pedrazzini T. Assessment of the Cardiac <u>Noncoding Transcriptome by Single-Cell RNA Sequencing Identifies FIXER</u>, a Conserved Profibrogenic Long Noncoding RNA. Circulation 2023.
- Artico J,... Treibel TA, ... COVID-HEART Investigators; Greenwood JP. <u>Myocardial Involvement After Hospitalization for COVID-19 Complicated by Troponin Elevation</u>. Circulation. 2023
- Thornton GT, ... **Treibel TA**. Myocardial scar and remodelling predict long-term mortality in severe aortic stenosis beyond 10 years. **Eur Heart J. 2024**.