

Stanford



Henry Chubb

Clinical Assistant Professor, Pediatrics - Cardiology

CLINICAL OFFICE (PRIMARY)

- **Pediatric Heart Center**

725 Welch Rd Ste 120

MC 5912

Palo Alto, CA 94304

Tel (650) 721-2121 **Fax** (650) 497-8422

Bio

BIO

Henry Chubb is a Clinical Assistant Professor in pediatric and adult congenital cardiac electrophysiology. He trained in Cambridge, Oxford and London in the UK, and has a PhD in the application of advanced MRI techniques to the management of cardiac arrhythmias. He has worked at Stanford since 2018, and provides specialist clinical arrhythmia care for both pediatric and adult congenital patients, including electrophysiological studies, ablation and device (pacemaker and ICD) implantation. He is a Fellow of the Heart Rhythm Society, an examiner for the IBHRE (International Board of Heart Rhythm Examiners), and author of over 80 peer reviewed journal articles and 6 book chapters.

Henry Chubb's research interests include the targeted use of physiological pacing in both children and ACHD patients (including conduction system pacing and cardiac resynchronization therapy (CRT)), the application of advanced imaging techniques to arrhythmia management, and the development of machine learning techniques for improved diagnostics in electrophysiology. His publications also include the management of Wolf-Parkinson-White syndrome, ablation strategies for AVNRT, internal cardioverter defibrillators in children and ventricular arrhythmias.

CLINICAL FOCUS

- Pediatric Cardiology
- Cardiac Electrophysiology
- Congenital Heart Defects
- Adult Congenital Heart Disease
- Cardiac Arrhythmias
- Artificial Cardiac Pacemaker
- Defibrillators, Implantable
- Cardiac Resynchronization Therapy

ACADEMIC APPOINTMENTS

- Clinical Assistant Professor, Pediatrics - Cardiology

- Member, Maternal & Child Health Research Institute (MCHRI)

HONORS AND AWARDS

- Madeleine Steel Travel Fellowship, Madeleine Steel Charity, UK (2017)
- Runner-up- Young Investigator of the Year, Heart Rhythm Congress, UK (2015)
- Travel Scholarship, European Heart Rhythm Association (2015)
- First place in Europe in written examinations, European Accreditation in Paediatric and Congenital Echocardiography (2012)
- Glynn Morgan Prize for Cardiology, University College, London, UK (2004)
- G.W Greig Prize, Christ's College, Cambridge University (2001)
- Rapaport Prize, Christ's College, Cambridge University (1999)
- Tancred Scholarship, Tancred Educational Foundation, London, UK (1999)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Examiner, International Board of Heart Rhythm Examiners (IBHRE) (2021 - present)
- Editorial board member (Fellow), Circulation: Arrhythmia and Electrophysiology (2019 - 2020)
- Editorial board member, Journal of Cardiac Magnetic Resonance (JCMR) (2017 - present)
- Member, Pediatric & Congenital Electrophysiology Society (PACES) (2014 - present)
- Member, Heart Rhythm Society (2013 - present)
- MRCPCH (UK), Member of Royal College of Paediatrics and Child Health (2009 - present)
- MRCP (UK), Royal College of Physicians (2007 - present)
- General Medical Council (UK), Specialist registration: Paediatric Cardiology. Registered with full licence to practice. (2004 - present)

PROFESSIONAL EDUCATION

- Board Certification: Pediatric Cardiology, General Medical Council (2018)
- Board Certification: Electrophysiology, International Board of Heart Rhythm Examiners (2018)
- Fellowship: London Deanery (2017)
- Residency: London School of Paediatrics (2009) UK
- Residency: John Radcliff Hospital (2007) OX
- Internship: University College Hospital (2005) UK
- Medical Education: University College London (2004) UK
- Fellowship, Paediatric Cardiology Registrar- Electrophysiology Fellow- Great Ormond Street Hospital, London, UK , 2016-2017
- PhD, King's College London: The use of cardiac magnetic resonance imaging techniques in the management of atrial arrhythmias , 2013-2016
- Fellowship, Paediatric Cardiology Registrar- Evelina London Children's Hospital, UK , 2010-2013
- Fellowship, Paediatric Cardiology Registrar- Royal Brompton Hospital, London, UK , 2009-2010

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

https://www.researchgate.net/profile/Henry_Chubb

Publications

PUBLICATIONS

- **Multicenter Study of Survival Benefit of Cardiac Resynchronization Therapy in Pediatric and Congenital Heart Disease.** *JACC. Clinical electrophysiology*
Chubb, H., Mah, D. Y., Shah, M., Lin, K. Y., Peng, D. M., Hale, B. W., May, L., Etheridge, S., Goodyer, W., Ceresnak, S. R., Motonaga, K. S., Rosenthal, D. N., Almond, et al
2023
- **Conduction system pacing in pediatric and congenital heart disease.** *Frontiers in physiology*
Chubb, H., Mah, D., Dubin, A. M., Moore, J.
2023; 14: 1154629
- **Impact and Modifiers of Ventricular Pacing in Patients With Single Ventricle Circulation.** *Journal of the American College of Cardiology*
Chubb, H., Bulic, A., Mah, D., Moore, J. P., Janousek, J., Fumanelli, J., Asaki, S. Y., Pflaumer, A., Hill, A. C., Escudero, C., Kwok, S. Y., Mangat, J., Ochoa Nunez, et al
2022; 80 (9): 902-914
- **Identifying an Appropriate Endpoint for Cryoablation in Children with Atrioventricular Nodal Reentry Tachycardia: Is Residual Slow Pathway Conduction Associated with Recurrence?** *Heart rhythm*
Zook, N., DeBruler, K., Ceresnak, S., Motonaga, K., Goodyer, W., Trella, A., Dubin, A., Chubb, H.
2021
- **Atrial Flutter and Atrial Fibrillation in Young Patients with Normal Hearts** *Catheter Ablation of Cardiac Arrhythmias in Children and Patients with Congenital Heart Disease*
Chubb, H., Dubin, A.
Taylor & Francis.2021; 1
- **Impact of Cardiac Resynchronization Therapy on Heart Transplant-Free Survival in Pediatric and Congenital Heart Disease Patients.** *Circulation. Arrhythmia and electrophysiology*
Chubb, H., Rosenthal, D. N., Almond, C. S., Ceresnak, S. R., Motonaga, K. S., Arunamata, A. A., Long, J., Trella, A. V., Hanisch, D., McElhinney, D. B., Dubin, A. M.
2020
- **Development, Pre-Clinical Validation and Clinical Translation of a Cardiac Magnetic Resonance-Electrophysiology System with Active Catheter Tracking for Ablation of Cardiac Arrhythmia** *Journal of the American College of Cardiology: Clinical Electrophysiology*
Chubb, H., Harrison, J. L., Weiss, S., Krueger, S., Koken, P., Bloch, L., Kim, W., Stenzel, G., Weisz, J. L., Gill, J., Schaeffter, T., O'Neill, M. D., Razavi, et al
2017; 3 (2): 89-103
- **Tachyarrhythmias and catheter ablation in adult congenital heart disease.** *Expert review of cardiovascular therapy*
Chubb, H., Williams, S. E., Wright, M., Rosenthal, E., O'Neill, M.
2014; 12 (6): 751-770
- **The use of Z-scores in paediatric cardiology.** *Annals of pediatric cardiology*
Chubb, H., Simpson, J. M.
2012; 5 (2): 179-184
- **Computational Modelling of CRT in Congenital Heart Disease: Fantasy or the Future?** *Europace : European pacing, arrhythmias, and cardiac electrophysiology : journal of the working groups on cardiac pacing, arrhythmias, and cardiac cellular electrophysiology of the European Society of Cardiology*
Chubb, H., Salvador, M., Marsden, A. L.
2024
- **Multi-site validation of a functional assay to adjudicate SCN5A Brugada Syndrome-associated variants.** *medRxiv : the preprint server for health sciences*
Ma, J. G., O'Neill, M. J., Richardson, E., Thomson, K. L., Ingles, J., Muhammad, A., Solus, J. F., Davogustto, G., Anderson, K. C., Benjamin Shoemaker, M., Stergachis, A. B., Floyd, B. J., Dunn, et al
2023
- **Utility of smart watches for identifying arrhythmias in children.** *Communications medicine*
Zahedivash, A., Chubb, H., Giaccone, H., Boramanand, N. K., Dubin, A. M., Trella, A., Lencioni, E., Motonaga, K. S., Goodyer, W., Navarre, B., Ravi, V., Schmiedmayer, P., Bikia, et al

2023; 3 (1): 167

● **Indications for Cardiac Resynchronization Therapy in Patients with Congenital Heart Disease.** *Cardiac electrophysiology clinics*

Karpawich, P. P., Chubb, H.

2023; 15 (4): 433-445

● **Digital twinning of cardiac electrophysiology for congenital heart disease.** *bioRxiv : the preprint server for biology*

Salvador, M., Kong, F., Peirlinck, M., Parker, D. W., Chubb, H., Dubin, A. M., Marsden, A. L.

2023

● **Correction: Exploring the feasibility of using long-term stored newborn dried blood spots to identify metabolic features for congenital heart disease screening.** *Biomarker research*

Ceresnak, S. R., Zhang, Y., Ling, X. B., Su, K. J., Tang, Q., Jin, B., Schilling, J., Chou, C. J., Han, Z., Floyd, B. J., Whitin, J. C., Hwa, K. Y., Sylvester, et al
2023; 11 (1): 101

● **Exploring the feasibility of using long-term stored newborn dried blood spots to identify metabolic features for congenital heart disease screening.** *Biomarker research*

Ceresnak, S. R., Zhang, Y., Ling, X. B., Su, K. J., Tang, Q., Jin, B., Schilling, J., Chou, C. J., Han, Z., Floyd, B. J., Whitin, J. C., Hwa, K. Y., Sylvester, et al
2023; 11 (1): 97

● **ECGs Do Not Detect Myocardial Ischemia in Patients with Williams Syndrome and Non-Syndromic Elastin Arteriopathy with Coronary Artery Stenosis.** *The American journal of cardiology*

Algaze, C., Chubb, H., Deitch, A. M., Collins, R. T.

2023

● **Ventricular Preexcitation in Hypertrophic Cardiomyopathy: Dove or a Hawk?** *Circulation. Arrhythmia and electrophysiology*

Chubb, H., Dubin, A. M.

2023: e012543

● **Outcomes After Development of Ventricular Arrhythmias in Single Ventricular Heart Disease Patients With Fontan Palliation.** *Circulation. Arrhythmia and electrophysiology*

Giacone, H. M., Chubb, H., Dubin, A. M., Motonaga, K. S., Ceresnak, S. R., Goodyer, W. R., Hanish, D., Treila, A. V., Boramanand, N., Lencioni, E., Boothroyd, D., Gruber-Naidich, A., Wright, et al

2023: e011143

● **Arrhythmias in Williams Syndrome.** *The American journal of cardiology*

Deitch, A. M., Giacone, H. M., Chubb, H., Algaze, C. A., Lechich, K. M., Collins, R. T.

2023; 195: 91-97

● **UTILITY OF THE APPLE WATCH (R) FOR IDENTIFYING ARRHYTHMIAS IN CHILDREN**

Zahedivash, A., Chubb, H., Giacone, H., Boramanand, N., Dubin, A., Treila, A., Lencioni, E., Motonaga, K., Goodyer, W., Ceresnak, S. R.

ELSEVIER SCIENCE INC. 2023: 1563

● **Management of Heart Failure With Arrhythmia in Adults With Congenital Heart Disease: JACC State-of-the-Art Review.** *Journal of the American College of Cardiology*

Moore, J. P., Marelli, A., Burchill, L. J., Chubb, H., Roche, S. L., Cedars, A. M., Khairy, P., Zaidi, A. N., Janousek, J., Crossland, D. S., Pass, R. H., Jacobs, J. P., Menachem, et al

2022; 80 (23): 2224-2238

● **Ventricular arrhythmias following transcatheter pulmonary valve replacement with the harmony TPV25 device.** *Catheterization and cardiovascular interventions : official journal of the Society for Cardiac Angiography & Interventions*

Taylor, A., Yang, J., Dubin, A., Chubb, M. H., Motonaga, K., Goodyer, W., Giacone, H., Peng, L., Romfh, A., McElhinney, D., Ceresnak, S.

2022

● **Single center blind testing of a US multi-center validated diagnostic algorithm for Kawasaki disease in Taiwan.** *Frontiers in immunology*

Kuo, H. C., Hao, S., Jin, B., Chou, C. J., Han, Z., Chang, L. S., Huang, Y. H., Hwa, K., Whitin, J. C., Sylvester, K. G., Reddy, C. D., Chubb, H., Ceresnak, et al
2022; 13: 1031387

● **Importance of Formula-Specific Centile Thresholds for Evaluation of Heart Rate-Corrected QT Prolongation in Williams Syndrome.** *The American journal of cardiology*

Algaze, C. A., Deitch, A. M., Chubb, H., Aziz, P. F., Collins, R. T.

2022

- **Risk Factors and Outcomes of Sudden Cardiac Arrest in Pediatric Heart Transplant Recipients.** *American heart journal*
Hollander, S. A., Barkoff, L., Giaccone, H., Adamson, G. T., Kaufman, B. D., Motonaga, K. S., Dubin, A. M., Chubb, H.
2022
- **Ultra-Rapid Nanopore Whole Genome Genetic Diagnosis of Dilated Cardiomyopathy in an Adolescent With Cardiogenic Shock.** *Circulation. Genomic and precision medicine*
Gorzynski, J. E., Goenka, S. D., Shafin, K., Jensen, T. D., Fisk, D. G., Grove, M. E., Spiteri, E., Pesout, T., Monlong, J., Bernstein, J. A., Ceresnak, S., Chang, P., Christle, et al
2022: CIRCGEN121003591
- **LA-Net: A Multi-Task Deep Network for the Segmentation of the Left Atrium** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Uslu, F., Varela, M., Boniface, G., Mahenthran, T., Chubb, H., Bharath, A. A.
2022; 41 (2): 456-464
- **Ultrarapid Nanopore Genome Sequencing in a Critical Care Setting.** *The New England journal of medicine*
Gorzynski, J. E., Goenka, S. D., Shafin, K., Jensen, T. D., Fisk, D. G., Grove, M. E., Spiteri, E., Pesout, T., Monlong, J., Baid, G., Bernstein, J. A., Ceresnak, S., Chang, et al
2022
- **Implantable Cardioverter Defibrillators in Infants and Toddlers: Indications, Placement, Programming, and Outcomes.** *Circulation. Arrhythmia and electrophysiology*
Zahedivash, A., Hanisch, D., Dubin, A. M., Trela, A., Chubb, H., Motonaga, K., Goodyer, W., Maeda, K., Reinhartz, O., Ma, M., Martin, E., Ceresnak, S.
2022: CIRCEP121010557
- **The Feasibility of a Mail-Out 12-Lead ECG in a Pediatric Cardiac Electrophysiology Telemedicine Environment**
Chubb, H., Motonaga, K., Goodyer, W. R., Trela, A., Hanisch, D., Boramanand, N., Lencioni, E., Maurille, M., Dubin, A. M., Ceresnak, S. R.
LIPPINCOTT WILLIAMS & WILKINS.2021
- **IMPLANTABLE CARDIOVERTER-DEFIBRILLATORS IN INFANTS AND TODDLERS: INDICATIONS, PLACEMENT, PROGRAMMING AND OUTCOMES**
Zahedivash, A., Hanisch, D., Dubin, A. M., Trela, A. V., Chubb, H., Motonaga, K., Goodyer, W., Maeda, K., Reinhartz, O., Ceresnak, S.
ELSEVIER SCIENCE INC.2021: 470
- **Evaluation of Patient Positioning to Mitigate RF-induced Heating of Cardiac Implantable Electronic Devices for Pediatric MRI Exams.** *Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society. Annual International Conference*
Martinez, J. A., Cork, T. E., Chubb, H., Vasanawala, S., Ennis, D. B.
2021; 2021: 5027-5030
- **Late Gadolinium Enhancement Cardiovascular Magnetic Resonance Assessment of Substrate for Ventricular Tachycardia With Hemodynamic Compromise.** *Frontiers in cardiovascular medicine*
Whitaker, J., Neji, R., Kim, S., Connolly, A., Aubriot, T., Calvo, J. J., Karim, R., Roney, C. H., Murfin, B., Richardson, C., Morgan, S., Ismail, T. F., Harrison, et al
2021; 8: 744779
- **Imaging for electrophysiological procedures** *The ESC Textbook of Cardiovascular Imaging (3 ed.)*
O'Neil, L., Sim, I., Whitaker, J., Williams, S., Chubb, H., Maurovich-Horvat, P., O'Neill, M., Razavi, R.
Oxford University Press.2021; 3
- **Left atrial ejection fraction estimation using SEGANet for fully automated segmentation of CINE MRI** *Lecture Notes in Computer Science*
Lourenço, A., Kerfoot, E., Dibblin, C., Alskaf, E., Anjari, M., Bharath, A. A., King, A. P., Chubb, H., Correia, T. M., Varela, M.
2021; 12592
- **Impact of Image Resolution and Resampling on Motion Tracking of the Left Chambers from Cardiac Scans** *Functional Imaging and Modeling of the Heart. FIMH 2021*
Razeghi, O., Strocchi, M., Corrado, C., Chubb, H., Rajani, R., Ennis, D. B., Niederer, S. A.
2021; 12738
- **Clinical outcomes and programming strategies of implantable cardioverter-defibrillator devices in paediatric hypertrophic cardiomyopathy: a UK National Cohort Study.** *Europace : European pacing, arrhythmias, and cardiac electrophysiology : journal of the working groups on cardiac pacing, arrhythmias, and cardiac cellular electrophysiology of the European Society of Cardiology*

- Norrish, G., Chubb, H., Field, E., McLeod, K., Ilina, M., Spentzou, G., Till, J., Daubeney, P. E., Stuart, A. G., Matthews, J., Hares, D., Brown, E., Linter, et al 2020
- **Single-cell RNA Sequencing Coupled With Optical Imaging for Targeted Real-time Visualization of the Cardiac Conduction System**
Goodyer, W. R., Beyersdorf, B., Van den Berg, N., Puluca, N., Buikema, J., Lee, S., Salmi, D., Robinson, E., Rogalla, S., Chubb, H., Motonaga, K., Ceresnak, S. R., Dubin, et al
LIPPINCOTT WILLIAMS & WILKINS.2020
 - **Use of Chimeric Antigen Receptor Modified T Cells With Extensive Leukemic Myocardial Involvement** *JACC: CARDIOONCOLOGY*
Han, B., Montiel-Esparza, R., Chubb, H., Kache, S., Schultz, L. M., Davis, K. L., Ramakrishna, S., Su, L.
2020; 2 (4): 666–70
 - **Use of Chimeric Antigen Receptor Modified T Cells With Extensive Leukemic Myocardial Involvement.** *JACC. CardioOncology*
Han, B., Montiel-Esparza, R., Chubb, H., Kache, S., Schultz, L. M., Davis, K. L., Ramakrishna, S., Su, L.
2020; 2 (4): 666-670
 - **Identifying locations of re-entrant drivers from patient-specific distribution of fibrosis in the left atrium.** *PLoS computational biology*
Roy, A., Varela, M., Chubb, H., MacLeod, R., Hancox, J. C., Schaeffter, T., Aslanidi, O.
2020; 16 (9): e1008086
 - **A low threshold for neonatal intervention yields a high rate of biventricular outcomes in pulmonary atresia with intact ventricular septum** *CARDIOLOGY IN THE YOUNG*
Morgan, G. J., Narayan, S. A., Goreczny, S., Chubb, H., Krasemann, T., Rosenthal, E., Qureshi, S. A.
2020; 30 (5): 649-655
 - **Pectoral Nerve Blocks Decrease Postoperative Pain and Opioid Use After Pacemaker or Implantable Cardioverter-Defibrillator Placement in Children.** *Heart rhythm*
Yang, J. K., Char, D. S., Motonaga, K. S., Navaratnam, M., Dubin, A. M., Trella, A., Hanisch, D. G., McFadyen, G., Chubb, H., Goodyer, W., Ceresnak, S. R.
2020
 - **Early Postnatal Echocardiography in Neonates with a Prenatal Suspicion of Coarctation of the Aorta** *PEDIATRIC CARDIOLOGY*
Vigneswaran, T. V., Bellsham-Revell, H. R., Chubb, H., Simpson, J. M.
2020; 41 (4): 772-780
 - **High-throughput quantitation of serological ceramides/dihydroceramides by LC/MS/MS: Pregnancy baseline biomarkers and potential metabolic messengers.** *Journal of pharmaceutical and biomedical analysis*
Huang, Q. n., Hao, S. n., Yao, X. n., You, J. n., Li, X. n., Lai, D. n., Han, C. n., Schilling, J. n., Hwa, K. Y., Thyparambil, S. n., Whitin, J. n., Cohen, H. J., Chubb, et al
2020; 192: 113639
 - **Modelling Left Atrial Flow and Blood Coagulation for Risk of Thrombus Formation in Atrial Fibrillation**
Qureshi, A., Darwish, O., Dillon-Murphy, D., Chubb, H., Williams, S., Nechipurenko, D., Ataullakhhanov, F., Nordsletten, D., Aslanidi, O., de Vecchi, A., IEEE
IEEE.2020
 - **Investigating Strain as a Biomarker for Atrial Fibrosis Quantified by Patient Cine MRI Data**
Qureshi, A., Roy, A., Chubb, H., de Vecchi, A., Aslanidi, O., IEEE
IEEE.2020
 - **Kinetics of SARS-CoV-2 positivity of infected and recovered patients from a single center.** *Scientific reports*
Huang, J. n., Zheng, L. n., Li, Z. n., Hao, S. n., Ye, F. n., Chen, J. n., Gans, H. A., Yao, X. n., Liao, J. n., Wang, S. n., Zeng, M. n., Qiu, L. n., Li, et al
2020; 10 (1): 18629
 - **Fully Automatic Atrial Fibrosis Assessment Using a Multilabel Convolutional Neural Network.** *Circulation. Cardiovascular imaging*
Razeghi, O. n., Sim, I. n., Roney, C. H., Karim, R. n., Chubb, H. n., Whitaker, J. n., O'Neill, L. n., Mukherjee, R. n., Wright, M. n., O'Neill, M. n., Williams, S. E., Niederer, S. n.
2020; 13 (12): e011512
 - **A proposed approach to the asymptomatic pediatric patient with Wolff-Parkinson-White pattern.** *HeartRhythm case reports*
Chubb, H., Ceresnak, S. R.
2020; 6 (1): 2–7

- **Cardiac resynchronization and implantable defibrillators in adults with congenital heart disease.** *Heart failure reviews*
Chubb, H., Motonaga, K. S.
2019
- **A Novel Machine Learning Algorithm Can Identify Septal Accessory Pathway Location on Pre-Procedural ECG in Children With Wolff-Parkinson-White Syndrome**
Escobar, A. J., Long, J., Perez, M. V., Dubin, A. M., Motonaga, K., Chubb, H., Trella, A., Hanisch, D. G., Ceresnak, S. R.
LIPPINCOTT WILLIAMS & WILKINS.2019
- **Improved co-registration of ex-vivo and in-vivo cardiovascular magnetic resonance images using heart-specific flexible 3D printed acrylic scaffold combined with non-rigid registration.** *Journal of cardiovascular magnetic resonance : official journal of the Society for Cardiovascular Magnetic Resonance*
Whitaker, J., Neji, R., Byrne, N., Puyol-Anton, E., Mukherjee, R. K., Williams, S. E., Chubb, H., O'Neill, L., Razeghi, O., Connolly, A., Rhode, K., Niederer, S., King, et al
2019; 21 (1): 62
- **A comprehensive multi-index cardiac magnetic resonance-guided assessment of atrial fibrillation substrate prior to ablation: prediction of long-term outcomes.** *Journal of cardiovascular electrophysiology*
Chubb, H., Karim, R., Mukherjee, R., Williams, S. E., Whitaker, J., Harrison, J., Niederer, S. E., Staab, W., Gill, J., Schaeffter, T., Wright, M., O'Neill, M., Razavi, et al
2019
- **Management of Asymptomatic Wolff-Parkinson-White Pattern by Pediatric Electrophysiologists.** *The Journal of pediatrics*
Chubb, H., Campbell, R. M., Motonaga, K. S., Ceresnak, S. R., Dubin, A. M.
2019
- **Evaluation of a real-time magnetic resonance imaging-guided electrophysiology system for structural and electrophysiological ventricular tachycardia substrate assessment.** *Europace : European pacing, arrhythmias, and cardiac electrophysiology : journal of the working groups on cardiac pacing, arrhythmias, and cardiac cellular electrophysiology of the European Society of Cardiology*
Mukherjee, R. K., Costa, C. M., Neji, R., Harrison, J. L., Sim, I., Williams, S. E., Whitaker, J., Chubb, H., O'Neill, L., Schneider, R., Lloyd, T., Pohl, T., Roujol, et al
2019
- **Cardiac Resynchronization Therapy in Congenital Heart Disease and Pediatric Patients with Heart Failure is Associated with Improved Survival**
Chubb, H., Almond, C. S., Rosenthal, D. N., Trella, A. V., Hanisch, D., Motonaga, K. S., Ceresnak, S. R., McElhinney, D. B., Dubin, A. M.
ELSEVIER SCIENCE INC.2019: S201–S202
- **Virtual Catheter Ablation Of Target Areas Identified from Image-Based Models of Atrial Fibrillation** *Functional Imaging and Modeling of the Heart. Lecture Notes in Computer Science*
Roy, A., Varela, M., Chubb, H., MacLeod, R. S., Hancox, J., Schaeffter, T., O'Neill, M., Aslanidi, O.
2019; 11504: 11-19
- **A proposed method for the calculation of age-dependent QRS duration z-scores.** *Journal of electrocardiology*
Chubb, H. n., Ceresnak, S. R., Motonaga, K. S., Dubin, A. M.
2019; 58: 132–34
- **Advances in Real-Time MRI-Guided Physiology** *Current Cardiovascular Imaging Reports*
Mukherjee, R., Chubb, H., Roujol, S., Razavi, R., O'Neill, M.
2019; 12 (6): 6
- **The value of ablation parameter indices for predicting mature atrial scar formation in humans: An in vivo assessment using cardiac magnetic resonance imaging** *JOURNAL OF CARDIOVASCULAR ELECTROPHYSIOLOGY*
Chubb, H., Lal, K., Kiedrowicz, R., Karim, R., Williams, S. E., Harrison, J., Whitaker, J., Wright, M., Razavi, R., O'Neill, M.
2019; 30 (1): 67–77
- **Mind the gap: Quantification of incomplete ablation patterns after pulmonary vein isolation using minimum path search** *MEDICAL IMAGE ANALYSIS*
Nunez-Garcia, M., Camara, O., O'Neill, M. D., Razavi, R., Chubb, H., Butakoff, C.
2019; 51: 1–12
- **Weakly supervised classification of rare aortic valve malformations using unlabeled cardiac MRI sequences** *Nature Communications*
Fries, J. A., Varma, P., Chen, V. S., Xiao, K., Tejeda, H., Saha, P., Dunnmon, J., Chubb, H., Maskatia, S., Fiterau, M., Delp, S., Ashley, E., Ré, et al
2019; 10

- **Reproducibility of Atrial Fibrosis Assessment Using CMR Imaging and an Open Source Platform.** *JACC. Cardiovascular imaging*
Sim, I. n., Razeghi, O. n., Karim, R. n., Chubb, H. n., Whitaker, J. n., O'Neill, L. n., Mukherjee, R. K., Roney, C. H., Razavi, R. n., Wright, M. n., O'Neill, M. n., Niederer, S. n., Williams, et al
2019
- **Modeling Left Atrial Flow, Energy, Blood Heating Distribution in Response to Catheter Ablation Therapy.** *Frontiers in physiology*
Dillon-Murphy, D., Marlevi, D., Ruijsink, B., Qureshi, A., Chubb, H., Kerfoot, E., O'Neill, M., Nordsletten, D., Aslanidi, O., de Vecchi, A.
2018; 9: 1757
- **Modeling Left Atrial Flow, Energy, Blood Heating Distribution in Response to Catheter Ablation Therapy** *FRONTIERS IN PHYSIOLOGY*
Dillon-Murphy, D., Marlevi, D., Ruijsink, B., Qureshi, A., Chubb, H., Kerfoot, E., O'Neill, M., Nordsleffen, D., Aslanidi, O., de Vecchi, A.
2018; 9
- **Mind the gap: Quantification of incomplete ablation patterns after pulmonary vein isolation using minimum path search.** *Medical image analysis*
Nunez-Garcia, M., Camara, O., O'Neill, M. D., Razavi, R., Chubb, H., Butakoff, C.
2018; 51: 1–12
- **The Value of Ablation Parameter Indices for Predicting Mature Atrial Scar Formation in Humans: An In Vivo Assessment using Cardiac Magnetic Resonance Imaging.** *Journal of cardiovascular electrophysiology*
Chubb, H., Lal, K., Kiedrowicz, R., Karim, R., Williams, S. E., Harrison, J., Whitaker, J., Wright, M., Razavi, R., O'Neill, M.
2018
- **Epicardial electroanatomical mapping, radiofrequency ablation, and lesion imaging in the porcine left ventricle under real-time magnetic resonance imaging guidance-an in vivo feasibility study** *EUROPACE*
Mukherjee, R. K., Roujot, S., Chubb, H., Harrison, J., Williams, S., Whitaker, J., O'Neill, L., Silberbauer, J., Neji, R., Schneider, R., Pohl, T., Lloyd, T., O'Neill, et al
2018; 20: F254–F262
- **MR-guided Cardiac Interventions.** *Topics in magnetic resonance imaging : TMRI*
Pushparajah, K., Chubb, H., Razavi, R.
2018; 27 (3): 115–28
- **Optimization of late gadolinium enhancement cardiovascular magnetic resonance imaging of post-ablation atrial scar: a cross-over study.** *Journal of cardiovascular magnetic resonance : official journal of the Society for Cardiovascular Magnetic Resonance*
Chubb, H., Aziz, S., Karim, R., Sohns, C., Razeghi, O., Williams, S. E., Whitaker, J., Harrison, J., Chiribiri, A., Schaeffter, T., Wright, M., O'Neill, M., Razavi, et al
2018; 20 (1): 30
- **Voltage and pace-capture mapping of linear ablation lesions overestimates chronic ablation gap size.** *Europace : European pacing, arrhythmias, and cardiac electrophysiology : journal of the working groups on cardiac pacing, arrhythmias, and cardiac cellular electrophysiology of the European Society of Cardiology*
O'Neill, L., Harrison, J., Chubb, H., Whitaker, J., Mukherjee, R. K., Bloch, L. Ø., Andersen, N. P., Dam, H., Jensen, H. K., Niederer, S., Wright, M., O'Neill, M., Williams, et al
2018
- **The reproducibility of late gadolinium enhancement cardiovascular magnetic resonance imaging of post-ablation atrial scar: a cross-over study.** *Journal of cardiovascular magnetic resonance : official journal of the Society for Cardiovascular Magnetic Resonance*
Chubb, H. n., Karim, R. n., Roujol, S. n., Nunez-Garcia, M. n., Williams, S. E., Whitaker, J. n., Harrison, J. n., Butakoff, C. n., Camara, O. n., Chiribiri, A. n., Schaeffter, T. n., Wright, M. n., O'Neill, et al
2018; 20 (1): 21
- **Ebstein Anomaly after Tricuspid Valve Replacement Needing Pacemaker Implantation** *Arrhythmias in Adult Congenital Heart Disease- A Case-Based Approach*
Chubb, H., Rosenthal, E.
Elsevier.2018; 1
- **Arrhythmias in Childhood and Patients with Congenital Heart Disease** *The ESC Textbook of Cardiovascular Medicine*
Chubb, H., Lowe, M.
Oxford University Press.2018; 3rd
- **The optimization of late gadolinium enhancement cardiac magnetic resonance imaging of post-ablation atrial scar: a cross-over study** *Journal of Cardiovascular Magnetic Resonance*
Chubb, H., Aziz, s., Karim, R., Sohns, C., Razeghi, O., Williams, S. E., Whitaker, J., Harrison, J., Chiribiri, A., Schaeffter, T., Wright, M., O'Neill, M., Razavi, et al

2018: 30

- **Lesion Index-Guided Ablation Facilitates Continuous, Transmural, and Durable Lesions in a Porcine Recovery Model.** *Circulation. Arrhythmia and electrophysiology*
Whitaker, J. n., Fish, J. n., Harrison, J. n., Chubb, H. n., Williams, S. E., Fastl, T. n., Corrado, C. n., Van Zaen, J. n., Gibbs, J. n., O'Neill, L. n., Mukherjee, R. n., Rittey, D. n., Thorsten, et al
2018; 11 (4): e005892
- **Voltage and pace-capture mapping of linear ablation lesions overestimates chronic ablation gap size** *Europace*
O'Neill, L., Harrison, J., Chubb, H., Mukherjee, R. K., Bloch, L. Ø., Andersen, N. P., Dam, H., Jensen, H. K., Niederer, S., Wright, M., O'Neill, M., Williams, S. E.
2018: euy062
- **Do We Finally Have the A to Z of Z Scores?** *Circulation. Cardiovascular imaging*
Simpson, J. M., Chubb, H.
2017; 10 (11)
- **MYOCARDIAL DEFORMATION MEASURED BY 3D SPECKLE TRACKING IN CHILDREN AND ADOLESCENTS WITH PRIMARY SYSTEMIC ARTERIAL HYPERTENSION**
Navarini, S., Bellsham-revell, H., Chubb, H., Gu, H., Sinha, M., Simpson, J.
SPRINGER.2017: 1739
- **Real-time MRI guidance of cardiac interventions.** *Journal of magnetic resonance imaging : JMRI*
Campbell-Washburn, A. E., Tavallaei, M. A., Pop, M., Grant, E. K., Chubb, H., Rhode, K., Wright, G. A.
2017
- **Novel MRI Technique Enables Non-Invasive Measurement of Atrial Wall Thickness.** *IEEE transactions on medical imaging*
Varela, M., Morgan, R., Theron, A., Dillon-Murphy, D., Chubb, H., Whitaker, J., Henningsson, M., Aljabar, P., Schaeffter, T., Kolbitsch, C., Aslanidi, O. V.
2017
- **Local activation time sampling density for atrial tachycardia contact mapping: how much is enough?** *Europace*
Williams, S. E., Harrison, J. L., Chubb, H., Whitaker, J., Kiedrowicz, R., Rinaldi, C. A., Cooklin, M., Wright, M., Niederer, S., O'Neill, M. D.
2017
- **Development, Preclinical Validation, and Clinical Translation of a Cardiac Magnetic Resonance - Electrophysiology System With Active Catheter Tracking for Ablation of Cardiac Arrhythmia.** *JACC. Clinical electrophysiology*
Chubb, H., Harrison, J. L., Weiss, S., Krueger, S., Koken, P., Bloch, L. Ø., Kim, W. Y., Stenzel, G. S., Wedan, S. R., Weisz, J. L., Gill, J., Schaeffter, T., O'Neill, et al
2017; 3 (2): 89-103
- **Do we finally have the A to Z of Z scores?** *Circ Cardiovasc Imaging*
Simpson, J., Chubb, H.
2017: e007191
- **Computational evaluation of radiofrequency catheter ablation settings for variable atrial tissue depth and blood flow conditions** *Computing in Cardiology*
Dillon-Murphy, D., Nordsletten, D., Soor, N., Chubb, H., O'Neill, M., de Vecchi, A., Aslandi, O.
2017; 44: 1-4
- **Arrhythmia in Congenital Heart Disease - A Current Perspective** *European Journal of Arrhythmia and Electrophysiology*
O'Neill, L., Chubb, H., O'Neill, M.
2017
- **Standardized unfold mapping: a technique to permit left atrial regional data display and analysis.** *Journal of interventional cardiac electrophysiology : an international journal of arrhythmias and pacing*
Williams, S. E., Tobon-Gomez, C. n., Zuluaga, M. A., Chubb, H. n., Butakoff, C. n., Karim, R. n., Ahmed, E. n., Camara, O. n., Rhode, K. S.
2017; 50 (1): 125-31
- **Intra-Atrial Conduction Delay Revealed by Multisite Incremental Atrial Pacing is an Independent Marker of Remodeling in Human Atrial Fibrillation.** *JACC. Clinical electrophysiology*
Williams, S. E., Linton, N. W., Harrison, J. n., Chubb, H. n., Whitaker, J. n., Gill, J. n., Rinaldi, C. A., Razavi, R. n., Niederer, S. n., Wright, M. n., O'Neill, M. n.
2017; 3 (9): 1006-17

- **Myocardial Deformation Measured by 3-Dimensional Speckle Tracking in Children and Adolescents With Systemic Arterial Hypertension.** *Hypertension (Dallas, Tex. : 1979)*
Navarini, S. n., Bellsham-Revell, H. n., Chubb, H. n., Gu, H. n., Sinha, M. D., Simpson, J. M.
2017; 70 (6): 1142–47
- **Epicardial electroanatomical mapping, radiofrequency ablation, and lesion imaging in the porcine left ventricle under real-time magnetic resonance imaging guidance-an in vivo feasibility study.** *Europace : European pacing, arrhythmias, and cardiac electrophysiology : journal of the working groups on cardiac pacing, arrhythmias, and cardiac cellular electrophysiology of the European Society of Cardiology*
Mukherjee, R. K., Roujol, S. n., Chubb, H. n., Harrison, J. n., Williams, S. n., Whitaker, J. n., O'Neill, L. n., Silberbauer, J. n., Neji, R. n., Schneider, R. n., Pohl, T. n., Lloyd, T. n., O'Neill, et al
2017
- **Cardiac Electrophysiology Under MRI Guidance: an Emerging Technology.** *Arrhythmia & electrophysiology review*
Chubb, H. n., Williams, S. E., Whitaker, J. n., Harrison, J. L., Razavi, R. n., O'Neill, M. n.
2017; 6 (2): 85–93
- **The role of myocardial wall thickness in atrial arrhythmogenesis** *EUROPACE*
Whitaker, J., Rajani, R., Chubb, H., Gabrawi, M., Varela, M., Wright, M., Niederer, S., O'Neill, M. D.
2016; 18 (12): 1758-1772
- **Slow Conduction in the Border Zones of Patchy Fibrosis Stabilizes the Drivers for Atrial Fibrillation: Insights from Multi-Scale Human Atrial Modeling** *FRONTIERS IN PHYSIOLOGY*
Morgan, R., Colman, M. A., Chubb, H., Seemann, G., Aslanidi, O. V.
2016; 7
- **Implantable cardioverter-defibrillators in congenital heart disease.** *Herzschrittmachertherapie & Elektrophysiologie*
Chubb, H., Rosenthal, E.
2016; 27 (2): 95-103
- **Personalized models of human atrial electrophysiology derived from endocardial electrograms.** *IEEE transactions on bio-medical engineering*
Corrado, C., Whitaker, J., Chubb, H., Williams, S., Wright, M., Gill, J., O'Neill, M., Niederer, S.
2016
- **Pacing and Defibrillators in Complex Congenital Heart Disease.** *Arrhythmia & electrophysiology review*
Chubb, H., O'Neill, M., Rosenthal, E.
2016; 5 (1): 57-64
- **Twenty-Seven Years Experience With Transvenous Pacemaker Implantation in Children Weighing < 10 kg** *CIRCULATION-ARRHYTHMIA AND ELECTROPHYSIOLOGY*
Konta, L., Chubb, M. H., Bostock, J., Rogers, J., Rosenthal, E.
2016; 9 (2)
- **Look Before You Leap Optimizing Outcomes of Atrial Fibrillation Ablation** *JACC-CARDIOVASCULAR IMAGING*
O'Neill, M. D., Chubb, H.
2016; 9 (2): 149-151
- **Predicting spiral wave stability by personalised electrophysiology models** *Predicting spiral wave stability by personalized electrophysiology models*
Corrado, C., Whitaker, J., Chubb, H., Williams, S., Gill, J., O'Neill, M., Niederer, S.
2016
- **Predicting Spiral Wave Stability by Personalized Electrophysiology Models**
Corrado, C., Whitaker, J., Chubb, H., Williams, S., Wright, M., Gill, J., O'Neill, M., Niederer, S., Murray, A.
IEEE.2016: 229-232
- **Fetal aortic valve stenosis: a critique of case selection criteria for fetal intervention** *PRENATAL DIAGNOSIS*
Hunter, L. E., Chubb, H., Miller, O., Sharland, G., Simpson, J. M.
2015; 35 (12): 1176-1181
- **The Effect of Contact Force in Atrial Radiofrequency Ablation: Electroanatomical, Cardiovascular Magnetic Resonance, and Histological Assessment in a Chronic Porcine Model.** *JACC. Clinical electrophysiology*

Williams, S. E., Harrison, J., Chubb, H., Bloch, L. Ø., Andersen, N. P., Dam, H., Karim, R., Whitaker, J., Gill, J., Cooklin, M., Rinaldi, C. A., Rhode, K., Wright, et al
2015; 1 (5): 421-431

● **The Effect of Contact Force in Atrial Radiofrequency Ablation: Electroanatomical, CMR and Histological Assessment in a Chronic Porcine Model** *Journal of the American College of Cardiology: Clinical Electrophysiology*

Williams, S., Harrison, J., Chubb, H., Bloch, L., Andersen, N., Dam, H., Karim, R., Whitaker, J., Gill, J., Cooklin, M., Rinaldi, A., Rhode, K., Wright, et al
2015; 1 (5): 421-431

● **Personalization of Atrial Electrophysiology Models from Decapolar Catheter Measurements**

Corrado, C., Williams, S., Chubb, H., O'Neill, M., Niederer, S. A., VanAssen, H., Bovendeerd, P., Delhaas, T.
SPRINGER-VERLAG BERLIN.2015: 21–28

● **Left Atrial Segmentation from 3D Respiratory- and ECG-gated Magnetic Resonance Angiography**

Karim, R., Chubb, H., Staab, W., Aziz, S., Housden, R., O'Neill, M., Razavi, R., Rhode, K., VanAssen, H., Bovendeerd, P., Delhaas, T.
SPRINGER-VERLAG BERLIN.2015: 155–63

● **Advances in CMR of Post-ablation Atrial Injury** *Curr Cardiovasc Imaging Rep*

Harrison, J. L., Whitaker, J., Chubb, H., Williams, S., Wright, M., Razavi, R., O'Neill, M.
2015; 8 (22): 22-28

● **Pathophysiology and Management of Arrhythmias Associated with Atrial Septal Defect and Patent Foramen Ovale.** *Arrhythmia & electrophysiology review*

Chubb, H., Whitaker, J., Williams, S. E., Head, C. E., Chung, N. A., Wright, M. J., O'Neill, M.
2014; 3 (3): 168-172

● **Correlation of Echocardiographic and Angiographic Measurements of the Pulmonary Valve Annulus in Pulmonary Stenosis** *CATHETERIZATION AND CARDIOVASCULAR INTERVENTIONS*

Chubb, H., Ward, A., Worme, A., Qureshi, S. A., Rosenthal, E., Krasemann, T.
2014; 84 (2): 192-196

● **Brugada Phenocopy with a Flecainide Overdose: A Pharmacological Dose Effect?** *JOURNAL OF CARDIOVASCULAR ELECTROPHYSIOLOGY*

Chubb, H., Cooklin, M., Rosenthal, E.
2014; 25 (5): 547-548

● **Quantification of Error in the Calculation of Z Scores in Neonates** *JOURNAL OF THE AMERICAN SOCIETY OF ECHOCARDIOGRAPHY*

Chubb, H., Simpson, J. M.
2014; 27 (4): 449-451

● **"About Brugada Phenocopy": Brugada Phenocopy with a Flecainide Overdose: A Pharmacological Dose Effect?** *JOURNAL OF CARDIOVASCULAR ELECTROPHYSIOLOGY*

Chubb, H., Cooklin, M., Rosenthal, E.
2014; 25 (3): E1

● **Highlights of the 6th World Congress in Paediatric Cardiology and Cardiac Surgery.** *Future cardiology*

Hayes, N., Chubb, H., Narayan, S., Qureshi, S.
2013; 9 (3): 309-312

● **Systolic and Diastolic Ventricular Function Assessed by Tissue Doppler Imaging in Children with Chronic Kidney Disease** *ECHOCARDIOGRAPHY-A JOURNAL OF CARDIOVASCULAR ULTRASOUND AND ALLIED TECHNIQUES*

Simpson, J. M., Rawlins, D., Mathur, S., Chubb, H., Sinha, M. D.
2013; 30 (3): 331-337

● **Long-Term Outcome Following Catheter Valvotomy for Pulmonary Atresia With Intact Ventricular Septum** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*

Chubb, H., Pesonen, E., Sivasubramanian, S., Tibby, S. M., Simpson, J. M., Rosenthal, E., Qureshi, S. A.
2012; 59 (16): 1468-1476

● **Pulmonary Atresia with Intact Ventricular Septum** *Paediatric Cardiovascular Medicine*

Chubb, H., Daubeney, P.
edited by Moller, J., Hoffman, J.
Wiley-Blackwell.2012; 2nd

• **Clinical scenario: an unusual case of heart failure.** *Timely topics in medicine. Cardiovascular diseases*

Chubb, H., Kaski, D.
2007; 11: E9-?

• **Heart and heart-lung transplantation for idiopathic restrictive cardiomyopathy in children HEART**

Fenton, M. J., Chubb, H., McMahon, A. M., Rees, P., ELLIOTT, M. J., Burch, M.
2006; 92 (1): 85-89