

# JAMES CRANLEY

BM BCh, MA, MRCP

I am an **academic cardiology trainee**. My clinical interest lies at the intersect of **inherited cardiac conditions** and **electrophysiology**. I am currently pursuing a PhD fellowship at the Sanger Institute<sup>1</sup> in the lab of Dr Sarah Teichmann<sup>2</sup>. I am using cutting edge **single-cell and spatial transcriptomic** methods to create a next-generation cell atlas of the human heart<sup>3</sup>.

## EDUCATION

- Sanger Institute (University of Cambridge)**  
PhD at [Teichmann Lab](#)  
Cambridge, UK  
2024 | 2021
- Cambridge University**  
PG Certificate in Medical Education  
Cambridge, UK  
2019
- Academic Clinical Fellowship in Cardiology**  
National Institute for Health Research (NIHR)  
3 month research fellowships in:
  - Huang Lab<sup>4</sup>, Cambridge University
  - MacRae Lab<sup>5</sup>, Harvard University
  - Munroe Lab<sup>6</sup>, Queen Mary University of London  
2018 | 2015
- Membership of the Royal College of Physicians**  
Royal College of Physicians  
London, UK  
2016
- Oxford Medical School**  
BM BCh (Distinction)  
Intercalated BA in Medical Science (1st class)  
Academic ("Old Members") scholarship  
Oxford, UK  
2013 | 2007
- Eton College**  
Academic ("Oppidan") scholarship  
7 'A's (Maths, Further Maths, Chemistry, Biology, French, Latin, Greek)  
Windsor, UK  
2007 | 2002

## RESEARCH EXPERIENCE

- Wellcome Trust PhD Fellowship**  
Sanger Institute  
2024 | 2021
  - Single cell and spatial transcriptomic analysis of the adult and developing human heart
  - 50% wet lab genomics (single-cell and spatial transcriptomic)
  - 50% bioinformatics (python, Bash, R)



View this CV online with links at [here](#)

## CONTACT

✉ [jc48@sanger.ac.uk](mailto:jc48@sanger.ac.uk)  
🐦 [jamescranley](#)  
🔗 [james-cranley](#)  
🔗 [james-cranley.github.io](#)  
in [james-cranley](#)

## PERSONAL DETAILS

Born: 1989  
Nationality: British  
Please [contact me](#) for further details & referees

*Last updated on 2022-12-27.*

### ● **NIHR Academic Clinical Fellowship**

- 2018: Genome-wide association study into ECG trait using UK Biobank data. Supervisor: [Prof Patsy Munroe/QMUL](#).
- 2017: Introduction to zebrafish as a model for cardiovascular disease. Supervisor: [Prof Calum MacRae/Harvard University](#)
- 2016: A murine model of metabolic syndrome. Supervisor: [Prof Chris Huang/Cambridge University](#).

2018 - 2016

2013

### ● **Bachelor's of Science (intercalated)**

Investigating the role of the neuropeptide Galanin in cardiac autonomics using a guinea pig Langendorff model. Supervisor: [Prof Neil Herring/Oxford University](#)

📍 Oxford University



## CLINICAL EXPERIENCE

current  
|  
2017

### ● **Specialty Training, Cardiology**

📍 East of England deanery

- ST6: Royal Papworth Hospital
- ST5: Norfolk & Norwich Hospital
- ST3 & ST4: Addenbrooke's Hospital

2017  
|  
2015

### ● **Core Medical Training**

📍 East of England deanery

- Papworth Hospital: Cardiology
- Hinchingbrooke Hospital: Respiratory
- Addenbrooke's Hospital: ICU

2015  
|  
2013

### ● **Foundation Training**

📍 North West Thames deanery

- Harefield Hospital: Cardiology
- Hillingdon Hospital: A&E
- Charing Cross Hospital: Acute Medicine

2013

### ● **Medical Elective**

📍 Mount Sinai Hospital, New York

- Cardiology Dept, Mount Sinai Hospital. Supervisor: Dr Valentin Fuster<sup>7</sup>



## TEACHING EXPERIENCE

current  
|  
2022

### ● **BJCA Trainee Representative to BHRS**

Committee role representing electrophysiology trainees nationally.

- current  
|  
2020

**Adult Life Support Instructor**  
 Registered provider and instructor
- 2021  
|  
2020

**Cardiology Webinars**  
 Organised and recorded a series of educational webinars for cardiology trainees, now hosted at [BJCA.tv](https://bjca.tv)
- 2020  
|  
2017

**Trainee Representative for East of England**  
 Designed and delivered training days, created website.
- 2017  
|  
2016

**Preclinical (physiology) and clinical supervisor**  
 Gonville & Caius College, Cambridge
- 2015  
|  
2014

**Harefield Medical Student Teaching Programme**  
 Organised a fortnightly schedule for rotating medical students. Taught regularly.
- 2015

**ECG Course - Oxford Revision Courses**  
 Oxford Medical School

## PUBLICATIONS

- 2022

**A single-cell comparison of adult and fetal human epicardium defines the age-associated changes in epicardial activity**  
[Nature Cardiovascular Research](#)  
 Vincent R. Knight-Schrijver, Hongorzul Davaapil, Semih Bayraktar, Alexander D. B. Ross, Kazumasa Kanemaru, **James Cranley**, Monika Dabrowska, Minal Patel, Krzysztof Polanski, Xiaoling He, Ludovic Vallier, Sarah Teichmann, Laure Gambardella, Sanjay Sinha
- 2022

**Single-cell transcriptomics for the assessment of cardiac disease**  
[Nature Reviews Cardiology](#)  
 Antonio M. A. Miranda, Vaibhao Janbandhu, Henrike Maatz, Kazumasa Kanemaru, **James Cranley**, Sarah A. Teichmann, Norbert Hübner, Michael D. Schneider, Richard P. Harvey, Michela Nosedà

2022

● **Pathogenic variants damage cell composition and single cell transcription in cardiomyopathies**

[Science](#)

Daniel Reichart, Eric L. Lindberg, Henrike Maatz, Antonio M. A. Miranda, Anissa Viveiros, Nikolay Shvetsov, Anna Gärtner, Emily R. Nadelmann, Michael Lee, Kazumasa Kanemaru, Jorge Ruiz-Orera, Viktoria Strohmer, Daniel M. DeLaughter, Giannino Patone, Hao Zhang, Andrew Woehler, Christoph Lippert, Yuri Kim, Eleonora Adami, Joshua M. Gorham, Sam N. Barnett, Kemar Brown, Rachel J. Buchan, Rasheda A. Chowdhury, Chrystalla Constantinou, **James Cranley**, Leanne E. Felkin, Henrik Fox, Ahla Ghauri, Jan Gummert, Masatoshi Kanda, Ruoyan Li, Lukas Mach, Barbara McDonough, Sara Samari, Farnoush Shahriaran, Clarence Yapp, Caroline Stanasiuk, Pantazis I. Theotokis, Fabian J. Theis, Antoon van den Bogaerd, Hiroko Wakimoto, James S. Ware, Catherine L. Worth, Paul J. R. Barton, Young-Ae Lee, Sarah A. Teichmann, Hendrik Milting, Michela Nosedà, Gavin Y. Oudit, Matthias Heinig, Jonathan G. Seidman, Norbert Hubner, Christine E. Seidman

2022

● **Impact of COVID-19 pandemic on cardiac rhythm management services: Views from the United Kingdom.**

[Heart rhythm O2](#)

Wern Yew Ding, **James Cranley**, David Begley, Archana Rao, Richard L. Snowden, Greg Mellor, Dhiraj Gupta

2021

● **Identifying predictive risk factors for permanent pacemaker implantation up to 30 days post-TAVI**

[European Heart Journal](#)

J Li, A Christodoulidou, **James Cranley**, F Ara, Charis Costopoulos, P Costanzo, M Osullivan, W Davies, C Densem, C A Martin

2020

● **Multi-ancestry GWAS of the electrocardiographic PR interval identifies 202 loci underlying cardiac conduction.**

[Nature communications](#)

Ioanna Ntalla, Lu-Chen Weng, James H. Cartwright, Amelia Weber Hall, Gardar Sveinbjornsson, Nathan R. Tucker, Seung Hoan Choi, Mark D. Chaffin, Carolina Roselli, Michael R. Barnes, Borbala Mifsud, Helen R. Warren, Caroline Hayward, Jonathan Marten, **James Cranley**, Pier D. Lambiase, Michele Orini, Julia Ramirez, Stefan Van Duijvenboden, David O. Arnar, Daniel F. Gudbjartsson, Hilma Holm, Patrick Sulem, Gudmar Thorleifsson, Rosa B. Thorolfsson, Unnur Thorsteinsdottir, Emelia J. Benjamin, Andrew Tinker, Kari Stefansson, Patrick T. Ellinor, Yalda Jamshidi, Steven A. Lubitz, Patricia B. Munroe

2020

● **Pulsed Levosimendan in advanced heart failure due to congenital heart disease: a case series.**

[European heart journal. Case reports](#)

**James Cranley**, Antonia Hardiman, Leisa J Freeman

- 2019 ● **Clinical outcomes of bioresorbable vascular scaffolds implanted with routine versus selective optical coherence tomography guidance: results from a single-centre experience.**

[EuroIntervention](#)  
 Vincent Floré, Adam J. Brown, Joel P. Giblett, Kevin Liou, **James Cranley**, Stephen P. Hoole, Nick E.J. West
- 2019 ● **Catastrophic antiphospholipid syndrome causing ST-segment elevation myocardial infarction with non-obstructive coronary arteries.**

[BMJ case reports](#)  
**James Cranley**, Unni Krishnan, Katharine Tweed, Rudolf Martin Duehmke
- 2018 ● **Regulatory and occupational considerations in cardiology**

[Medicine](#)  
**James Cranley**, Catriona Bhagra
- 2018 ● **Ventricular pro-arrhythmic phenotype, arrhythmic substrate, ageing and mitochondrial dysfunction in peroxisome proliferator activated receptor- $\gamma$  coactivator-1 $\beta$  deficient (Pgc-1 $\beta^{\text{KO}}$ ) murine hearts.**

[Mechanisms of ageing and development](#)  
 Shiraz Ahmad, Haseeb Valli, Karan R. Chadda, **James Cranley**, Kamalan Jeevaratnam, Christopher L.-H. Huang
- 2018 ● **A New Approach to an Old Problem: One Brave Idea.**

[Circulation research](#)  
**James Cranley**, Calum A. MacRae
- 2016 ● **TCT-405 Optical coherence tomography-guided optimal bioresorbable vascular scaffold implantation informs subsequent implantation without intravascular imaging: further evidence for a 'learning curve'?**

[Journal of the American College of Cardiology](#)  
 Vincent Floré, Adam Brown, **James Cranley**, Joel Giblett, Stephen Hoole, Nick West
- 2013 ● **Long-term follow-up of patients undergoing free tissue transfer to the lower limb following trauma**

[European Journal of Plastic Surgery](#)  
 Dipender Gill, David J. Bruce, Mark J. Ponsford, **James Cranley**, Timothy E. Goodacre
- 2011 ● **The cardiac sympathetic co-transmitter galanin reduces acetylcholine release and vagal bradycardia: implications for neural control of cardiac excitability.**

[Journal of molecular and cellular cardiology](#)  
 Neil Herring, **James Cranley**, Michael N. Lokale, Dan Li, Julia Shanks, Eric N. Alston, Beatrice M. Girard, Emma Carter, Rodney L. Parsons, Beth A. Habecker, David J. Paterson







2010

- **Galanin reduces cardiac vagal acetylcholine release and bradycardia via a GalR1, protein kinase C dependent pathway**  
[The FASEB Journal](#)  
Neil Herring, **James Cranley**, Michael N Lokale, Beth Habecker, David J Paterson

## LINKS

1. <https://www.sanger.ac.uk/>
2. <http://www.teichlab.org/>
3. <https://www.heartcellatlas.org/>
4. <https://crukcambridgecentre.org.uk/users/clh1113207>
5. <https://hsci.harvard.edu/people/calum-macrae-md-phd>
6. <https://www.qmul.ac.uk/whri/people/academic-staff/items/munroepatricia.html>
7. <https://profiles.mountsinai.org/valentin-fuster>

## PRESENTATIONS AND POSTERS

- Jun. 2022 ● **British Heart Foundation Symposium**  
Presentation on single-cell atlasing of the heart  Cambridge, UK
- Dec 2019 ● **International Conference of Genomics**  
*'KCNQ1 variants and JLNS, genotype-phenotype correlations'*  York, UK
- Oct. 2019 ● **Heart Rhythm Congress**  
*'A novel variant causing JLNS, but not LQT1'*  Birmingham, UK
- May. 2019 ● **British Society of Cardiac Imaging**  
*'Localised effusive-constrictive pericarditis - a late complication of PCI'*  
 Cambridge, UK
- May. 2015 ● **SCAI 2014**  
*Risk factors for haematoma development post cardiac catheterisation.*  
 San Diego, USA
- Jun. 2014 ● **ASGBI**  
*'Appendicitis in women of child-bearing age: the diagnostic process in a busy London teaching hospital'*  
 Glasgow, UK

## QUALIFICATIONS AND AWARDS

- May 2019 ● **Cardiac MRI Level 1 Course (KCH)**
- April 2019 ● **British Society of Echocardiography Level 1**

- 2019 ● **Advanced Life Support Instructor**
- October 2018 ● **ALS instructor course (QMS, Nottingham)**
- Sept 2016 ● **National Pacemaker course Pacemaker programming and interrogation (Imperial College)**
- June 2016 ● **National Pacemaker course Pacemaker programming and interrogation (Imperial College, Sept 2016) FICE Course Focused Echocardiography for critically ill patients (Reading Hospital)**
- February 2016 ● **MRCP PACES**
- October 2015 ● **IMPACT Course (Arrowe Park Hospital, Liverpool)**
- March 2015 ● **MRCP Part II**
- September 2014 ● **MRCP Part I**
- June 2013 ● **Advanced Life Support Provider**



## CLINICAL AUDIT

- 2019 ● **CUH Devices Audit 2019 (NICE TA 314)**
- 2017 ● **Improving CMT exposure to 2222 QIP, 2017.**
- 2016 ● **Hinchingbrooke Hospital Arterial Blood Gas Audit, 2016**
- 2014 ● **Harefield Hospital Haematoma post Cardiac Catheterisation Audit, 2014.**
- 2014 ● **Charing Cross Acute Mastitis Pathway, 2014.**

2013

- **Short & Medium term complications post implanted devices, John Radcliffe Hospital, Oxford, 2012/3.**